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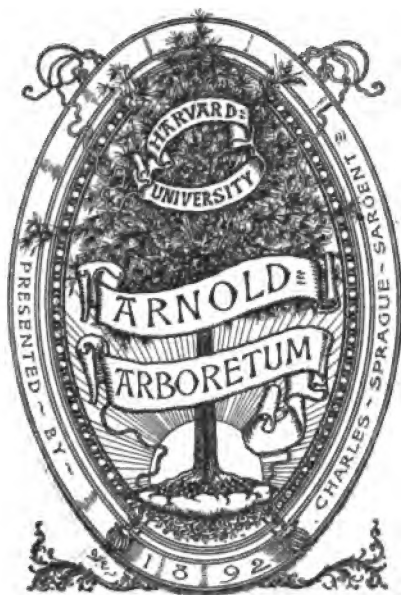
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ALFRED RUSSEL WALLACE, LL.D., D.C.L., F.R.S.



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— TO —

ALFRED RUSSEL WALLACE,

LL.D., D.C.L., F.R.S.

THE SIXTY-FOURTH VOLUME OF "THE GARDEN"

Is dedicated.

THE exalted place in Natural Science occupied by Mr. Alfred Russel Wallace is well known, and it will be remembered that in the middle years of the last century he was independently considering the natural forces that were the causes of the evolution of Species, on much the same lines as those that were at the same time being studied by Darwin.

His conclusions on this subject, the results of his arduous journeys, and his researches in the many branches of Natural History are recorded in his books "Travels on the Amazon" (1853), "Palm Trees of the Amazon" (1853), "The Malay Archipelago" (1869), "Natural Selection" (1876), "Tropical Nature" (1878), "Darwinism" (1889), and others.

Born in 1823 at Usk, in Monmouthshire, and educated at the Hertford Grammar School—in his mother's native town, where the family came to live about 1828—Mr. Wallace set forth at the age of twenty-five on the first of his tropical journeys.

His lifelong delight in the beauty of flowers has led him to their care and culture as his most sympathetic recreation. Mr. Wallace is an ardent and accomplished gardener, and it is in this capacity mainly that he has given his portrait and accepted the dedication of the present volume of THE GARDEN.

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THE GARDEN

No. 1650.—VOL. LXIV.]

[JULY 4, 1903.]

THE NATIONAL ROSE SOCIETY'S SHOW.

THE unexpected has happened, and the metropolitan show of this society proved a success. We have no financial considerations in mind, but a few days ago, when the wintry, sunless, and rainy weather upset all calculations, the honorary secretary, Mr. Mawley, thought the outlook dismal, as well he might, but the past few days of brilliant sunshine helped matters to such an extent that absolute failure has been avoided.

It would be idle to describe the show as faultless; but it was an excellent one, taking all things into account, and all we hope is that the society will have earned sufficient to make good the losses of last year, when the weather also proved unkind and the illness of His Majesty the King cast a shadow over every form of entertainment. After all, the Rose shows of this society are forms of entertainment, and without a good "gate" its resources are quickly exhausted.

Those who visited the exhibition in the Holland Park Gardens and advocate a two days' Rose show will surely now be convinced that such a display would be a fiasco. It would be unfair to the general public and intensely uninteresting to the keen rosarian to attempt to continue after the first day an exhibition of a flower whose great charm is beauty of colouring and freshness. We left the tents in the early afternoon, and then even the prize flowers of great substance were collapsing through the heat. We hope, therefore, we have heard the last of this wild scheme.

The sudden collapse of the flowers may be in part attributed to faulty ventilation of the tents. A pleasant breeze stirred the trees outside, but gave no relief to the sweltering flowers and public under the heated canvas. If the society is to continue even a one-day show and earn the praises of the visitors there must be an atmosphere to live in. We are not thinking of this society in particular, but of all societies. It is the same everywhere.

The flowers throughout were small, and in several classes there was no competition whatever, but the exhibition was thoroughly well worth visiting simply to discover how beautiful many varieties were, in spite of the deplorable weather vicissitudes of the past few weeks. It was interesting to see that the old favourite Hybrid Perpetual (Mrs. John Laing) won the first prize for the premier bloom in both the

amateurs' and nurserymen's divisions, in the first case by Mr. E. B. Lindsell, who won the champion challenge trophy; and in the latter by Messrs. Prior and Son of Colchester. Another superb flower was Beattie Brown, which was the premier bloom in the nurserymen's classes, and also shown by Messrs. Prior.

The competition in the great class for seventy-two flowers, distinct, was hotly contested, Messrs. Harkness and Co., Hitchin, Herts, beating Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, by one or two points only. The flowers in both instances were superb for finish, colour, and freshness.

Mr. Orpen's exhibits were of much interest throughout. His bunches of five distinct varieties comprised Lady Curzon, raised, we believe, by Mr. Charles Turner of Slough, it is a Damask Rose, and very soft blush in colour; the Himalayan Briar, wickuriana Gardenia, Leuchstern, and Purity.

The arches of Roses would have been more attractive if wood had been substituted for galvanised wire, but this is a small matter. The baskets, vases, table decorations, and miscellaneous exhibits much relieved the monotony of green painted boxes.

Of new Roses those staged for awards were the pretty Blush Rambler, which we have described before, and a gloriously showy single Hybrid Perpetual pillar Rose, a seedling named The Maharajah, both from Messrs. B. R. Cant and Sons. The flower is over 6 inches across, intense velvety crimson, and reminds one of Bardou Job. Mr. Orpen showed a pretty rose-pink single pillar Rose named Mrs. Orpen, which we shall hear more of.

The Hybrid Tea class once again showed its strength under exceptional circumstances. The flowers of many of the best known varieties were in some instances of superb texture and colour.

We congratulate Mr. Mawley and all his co-workers upon the success of the show under most trying conditions, and we hope the funds of the society will be placed upon a satisfactory footing this year. The weather was glorious, and the tents at times uncomfortably crowded. It is only fair to mention that the officials of the Royal Horticultural Society, Mr. Wright and others assisted the honorary secretary in his arduous labours.

With regard to the often-discussed question of the improvement of Rose shows, Mr. Mawley and the committee have gradually made many alterations for the better. There were Roses in vases, in baskets, bowls, and on

arches. The National Rose Society deserves the support of all Rose lovers and growers in the kingdom. Thanks are due to the Benchers of the Inner Temple for their kindness in placing their pleasant gardens at the disposal of the society.

If the present exhibition proves to be a financial failure, we say again, as we said last year, that two exhibitions in the Temple Gardens within a few weeks of each other, and a Rose show at Holland Park six days before that of the National Rose Society form rather too liberal a diet for even our British flower-loving public.

GARDENERS' ROYAL BENEVOLENT INSTITUTION.

At least once a year we have occasion to bring the claims of this institution before those who are interested in the gardening charities. This occasion is the annual dinner, which took place at the Hotel Metropole on Wednesday in last week. We briefly alluded to it in our last issue at the moment of going to press, when we mentioned that the sum collected was £1,750. The chair was taken by the Earl of Warwick, who was supported by Lord Redesdale, Lord Brooke, Sir Walter Smythe, Bart., Baron Schroder, and Messrs. H. J. Veitch, M. H. Sutton, A. Sutton, G. A. Dickson, Arnold Moss, H. S. Rivers, Owen Thomas, W. Crump, J. Douglas, W. J. Nutting, E. T. Cook, G. Monro, Peter Kay, J. Asbee, E. Rochford, G. Sherwood, C. Czarnikow, R. McVitie, G. H. Maycock, W. Mortimer, Herbert Cutbush, Harry Williams, W. Baker, J. Baker, W. Icton, R. Whitpaine Nutting, A. Mackellar, G. Norman, N. F. Barnes, W. P. Barr, Peter Barr, Alderman Piper, J. Laing, and many others.

In proposing the usual loyal toasts, the chairman mentioned that the Prince of Wales, president of the institution, would probably take the chair in the near future, and in well-chosen remarks alluded to the sympathy always shown towards this institution by the Royal Family.

Speaking of the claims of the institution upon the charitable, the Earl mentioned that 204 men and 38 widows were in receipt of pensions; each of the former receive £20 and the latter £16 a year.

Mr. H. J. Veitch, the treasurer, in responding to this toast, urged upon those present to do their utmost for the institution, and referred to the work of the committee, which was thoroughly and economically carried out. Between £4,000 and £5,000 were needful annually to maintain the work which they had in hand. Mr. Veitch also alluded to the kindness of the Earl of Ilchester in allowing his gardens to be opened on the occasion of the Holland Park show on payment of 1s., the

proceeds to go to this institution and the Royal Gardeners' Orphan Fund.

Lord Redesdale in a happy speech gave the toast of "Success to Horticulture," responded to by Alderman R. Piper of Worthing.

After a few other toasts, one to the secretary, Mr. Ingram, the proceedings closed.

The tables were beautifully decorated, thanks to several nurserymen, and in many ways we could see how much the nurserymen and some of the leading gardeners of these isles have the welfare of this charity at heart. We wish it still greater success in the future. It is not an institution in which a large share of the subscriptions are devoted to office or working expenses, but is worked upon thoroughly economical lines. It is the means of bringing comfort to many homes, and we hope that next year even a larger sum will be collected. The following were some of the principal donations: H.R.H. the Prince of Wales, £20; the Earl of Warwick, £25; Lord Redesdale, £5; Baron Schroder, £100; Messrs. Rothschild and Sons, £105; Mr. A. W. Sutton, V.M.H., £50, and £20 to the Good Samaritan Fund; Mr. Martin H. Foquet Sutton, £50; Messrs. Veitch and Son, Limited (annual), £52 10s.; Mr. N. N. Sherwood, £50; Mr. W. Mackay, Exeter, £25; Mr. Leopold Salomons, £21; Mr. R. Dean, V.M.H., £31 10s.; Messrs. Dickson of Chester, £20; Mr. H. J. Veitch, £10 10s.; Mrs. H. J. Veitch, £5 5s.; Proprietors of *Country Life*, £10 10s.; of *THE GARDEN*, £5 5s.; Thames Bank Iron Company, £10 10s.; Mrs. J. Baker, £10 10s.; Mr. George Norman, V.M.H., £21; Mr. A. MacKellar, £17 17s.; Mr. D. Fleming, £20; Mr. George Profit, £23 10s.; Mr. R. Milligan Hogg, £20; Mr. W. H. Massie of Edinburgh, £12 12s.; Messrs. Barr and Sons, Messrs. W. Paul and Sons, Mr. W. Thompson Stone, Mr. James Hudson, and Mr. C. Czarnikow, 10 guineas each; Mr. George Monro and Covent Garden friends, £85; Mr. H. Williams, £8 18s.; Messrs. J. Douglas and J. Jaques, £8 8s.; Mr. E. T. Cook, £7 7s.; Mr. Owen Thomas, £6; and the following subscribed five guineas each: Messrs. R. J. Cuthbert, W. J. Nutting, W. L. Cory, A. B. Wadda, Robert Sydenham, N. F. Barnes, H. G. Cove, Bunyard and Co., G. H. Maycock, Edward Sherwood, William Sherwood, Cutbush and Son, H. J. Adams, George J. Braithridge, R. McVitie, and James Lee.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

JULY 7.—Wolverhampton Floral Fête. This is held in the West Park, and will continue for three days.

July 7.—Royal Horticultural Society's meeting; Southampton Horticultural Show; Harrow Show.

July 8.—East Anglian Horticultural Club meeting; Farningham and Croydon Shows.

July 9.—Woodbridge Show.

Royal Horticultural Society.—The next fruit and flower show of the above society will be held on Tuesday next in the Drill Hall, Buckingham Gate, Westminster, 1—5 p.m. Lectures on "Hardy Irises" will be given by Miss Armitage and Mr. Caparne at three o'clock. At a general meeting of the society held on Tuesday, the 9th ult., 132 new Fellows were elected, amongst them being the Earl of Munster, the Countess of Lucan, Sir Algernon West, K.C.B., Sir William Eden, Bart., Lady Liddell, Lady Meyrick, and Lady Young, making a total of 900 elected since the beginning of the present year.

Hybrid Richardia.—In your issue for June 20, page 419, we note mention being made of

a new hybrid Richardia, raised by Mr. Latham, Botanic Gardens, Birmingham, by crossing Richardia albo-maculata with R. eliottiana, the result being sulphur-yellow spathe with crimson blotch on the base inside, the leaves also being spotted with white. It will no doubt interest you to hear that some few years ago we crossed R. eliottiana with an old type now rarely seen, viz., R. aurata. This resulted in a hybrid that would apparently be a counterpart of the one produced by Mr. Latham, as our hybrid also possesses the rich sulphur-yellow spathe and the crimson blotch at the base of the inside. The leaves also have those transparent blotches that are characteristic of R. eliottiana. We have also a recollection of a similar one of Continental origin receiving an award at the recent Temple show. We would mention that we put our hybrid into commerce some few years ago under the name of Richardia Taylori.—CLIBRAN AND SON, *Altrincham*.

Pigmy trees and hardy flowers at the Botanic Gardens.—Messrs. Barr and Sons, King Street, Covent Garden, are holding an exhibition of hardy flowers and Japanese pigmy trees in the above gardens, Regent's Park. The exhibition will remain open until July 11. Entering the corridor from the large conservatory one first sees the hardy flowers, which extend about halfway down. English, Japanese, Spanish, and Flag Irises, Poppies, Peonies, Delphiniums, Water Lilies, Gladioli, Calochorti, Lilliums, Pyrethrums, and Sweet Peas are all well represented, and combine to make a brilliant display of colour. Among the English Irises are some lovely varieties—for instance, Rebecca, blush, splashed with crimson; Blue Celeste, rich blue; Clara Butt, French grey; Blanche Fleur, white, except for a few yellow markings; Bacchus, rich purple; Triumph, China blue; and Lord Roberts, deep blue. Gladiolus Peach Blossom is a beautiful flower of the richest pink; Iris aurea has large, rich yellow blooms.

Hardy flowers at the York show. In the exhibit from Mr. J. Wood, Kirkstall, Leeds, at the York Gala the following plants were worthy of particular mention: Allium oestrowskyanum, Adiantum pedatum, Androsace lanuginosa, A. l. oculata, Arisema triphylla, Astragalus hypoglottis albus, Campanula divergens, C. oensis, Dianthus Atkinsonii, D. neglectus, D. Sternbergii, and Edraianthus serpyllifolius.

Delphinium Belladonna from seed.—Is not "M. L. W." in error in writing of "seedlings" of this fine old plant? I grew it largely for many years, but never saw a seed, and am under the impression it is sterile. The other difficulty, Lithospermum prostratum, flourished at Chilwell on a thin loam over gravel without any manure or other addition, in the full sun, but on the level. The plants filled a small bed, forming a matted carpet, which was a beautiful sight each spring for many years.—CHARLES E. PEARSON, *Loudham*.

Sir Daniel Morris, K.C.M.G.—His Majesty the King's Birthday Honours List contains the name of Daniel Morris, Esq., C.M.G., D.Sc., M.A., upon whom has been conferred the dignity of a Knight Commandership of the Order of St. Michael and St. George. Sir Daniel Morris, who was formerly assistant director of the Royal Botanic Gardens, Kew, left there in 1898 upon his appointment as Commissioner, Imperial Department of Agriculture, Barbadoes, West Indies. He was at one time treasurer of the Royal Horticultural Society.

Oehna multiflora not a stove shrub. Mention has been made several times lately of the pretty greenhouse shrub, Oehna multiflora, and as I see it is described as a stove shrub, I do not wonder at its being little known or grown, as it will dwindle and die in such a temperature. Coming from rather high altitudes, it needs a winter temperature of 50°, with plenty of air, and will then thrive and make a healthy plant. Its bright yellow flowers in February are quickly over, but the fleshy calyx soon swells and becomes bright red, while the seeds turn gradually from green to black, when it is most attractive. It is best raised from seed from time to time, as it is apt to seed itself to death. I have, however,

sometimes kept a good plant for ten years, but the finest specimens are made by preventing it bearing seed till it has attained a fair size. Like the Heaths, it requires a peaty soil and plenty of air at all times, and should be in the coolest house all summer if a healthy plant is desired.—EDWARD H. WOODALL.

An imperishable horticultural paint.—Mr. Chas. T. Druery as manager of the Lubroce Paint Company, Moorgate Station Chambers, E.C., calls our attention to a paint recently introduced into this country, which is admirably adapted for the protection of wood and ironwork in conservatories or greenhouses. It is entirely distinct from oil paints, having an imperishable rubber-like body as a basis, so that the paints form an elastic and strongly adherent skin which cannot crack, blister, or flake off, and stands both heat and damp indefinitely. As no priming is required, and two coats equal in covering capacity four of oil paints, they are very economical in application, apart from greater permanence, while their appearance is equal to the best expensive enamel paints. An enormous Continental consumption and an experience of five years demonstrates their value beyond a doubt.

Azara microphylla.—This is a graceful evergreen shrub, highly ornamental, producing Palm-like branches, the leaves disposed in pairs on the branches. It produces greenish yellow flowers in clusters in summer, followed by numerous small orange-coloured berries. It is hardy enough to stand out in the open without injury if a little elevated in a sheltered position. It makes an excellent wall shrub, in which position it is probably seen to the best advantage.

The carmine Candytuft.—The dawn of this group of Candytufts was, no doubt, when MM. Vilmorin and Co. of Paris introduced their large flesh-coloured annual variety, which they distributed many years ago, and which proved a most valuable addition to our annual Candytufts. By means of successive selections what is known as the cardinal was developed, and this has proved such an advance in colour as to justify being described as carmine. I found the deep-coloured form true last year, but it is always wise for garden as for commercial purposes to select as seed-bearers the deepest coloured and finest formed flowers. The carmine Candytuft now needs to be led on in the same way until a variety is produced from it as large as the carmine. We have a very fine giant white in Dobbie's Giant Spiral. This produces long spiral spikes of large white blossoms. In its true form it is of compact growth, as well as highly floriferous, and it is entitled to take a place among the very finest and most useful of our hardy annuals.

A fine Cauliflower.—This is a Boston selection, and is known as Johnson's Market Garden Autumn Cauliflower. It illustrates the value of careful selection. A plant was seen to show greater precocity than its fellows; seeds were carefully saved and sown; the large majority of the plants were found to show the same precocity; the most perfect of these were selected as seed-producers; and in this way the precocious character was fixed. This process illustrates the care taken by our seed growers to have stocks with the greatest fidelity to type, combined with the highest quality.—R. D.

Hampstead Heath view.—The council for the Hampstead Heath extension scheme have resolved to make an effort to raise £48,000 for the acquisition of eighty acres of land, offered by the trustees at £600 per acre, on the north-west boundary of the heath. It is sought to save Wyld's farm and the neighbouring meadows from the builder, thereby retaining the view from the Spaniards Road and the north-west heath, providing new playing fields for Londoners, and avoiding the congestion which might arise from the increased traffic by the "tube" railway. Mr. G. J. Shaw-Lefevre is president and the Earl of Meath vice-president of the council. The provisional committee has raised £3,000 in two weeks.

Devizes Chrysanthemum show.—The date of the above show is altered from November 11 to November 3.

Feltham, Bedfont, and Hanworth show takes place on the 22nd inst. at Feltham.

A yellow Cineraria.—The *Cineraria* referred to on page 403 as *Cineraria auriculata* is a native of British Central Africa, from where it was introduced about half a dozen years ago. The specific name is derived, not, as suggested, from the colour of the blossoms, for the term *auriculata* signifies having ear-like appendages. Considering that the genus *Cineraria* is now entirely swept away by botanists, being completely swallowed up by *Senecio*, it would appear that though the garden varieties do not include any yellow forms they have more relatives of that colour than any other. Like *Azaleas*, *Gloxinias*, *Cerasus*, *Amaryllis*, and many other classes, it is more than probable that the botanists dictum will never be generally followed in gardens, at least in our days.

Rubus moluccanus.—This member of the Bramble family, so well illustrated in THE GARDEN, page 408, is the plant which, under the name of *Rubus reflexus*, attracted much attention at the recent exhibition at Ghent, being unknown to at least most of the English visitors. In good examples the leaves reminded one much of some of the *Begonias*. As it is readily struck from cuttings, we shall doubtless soon see this *Rubus* plentifully distributed in gardens. This Bramble furnishes one among many instances of an old plant bounding all at once into a popularity it has never before attained, for *R. moluccanus* was introduced as long ago as 1817, yet it has been one of the most talked of subjects during the last few weeks.—H. P.

Ceanothus divaricatus.—This *Ceanothus*, mentioned in THE GARDEN among the shrubs in flower at Kew, struck me during a recent visit as one of the most notable features there, and one that as a shrub in the open ground (apart from the protection of a wall) is rarely seen in such grand condition. It attains the dimensions of a large bush some 10 feet to 12 feet high, and is of a dense, freely-branching habit of growth. The oblong ovate leaves, an inch or so in length, are dark green, while the flowers, which are borne in dense clusters, are of a very distinct shade of pale slate blue. So numerous are they that when at their best the entire plant appears to be a mass of that tint. This *Ceanothus* is, like most members of the genus, a native of California, and was first introduced by seeds sent to the Royal Horticultural Society in 1841, a period when through its agency many new plants were introduced. Judging by its behaviour at Kew, this must be regarded as one of the hardier forms of *Ceanothus*, though in many districts the protection of a wall would no doubt be best.—T.

Rhododendrons in Hyde Park.—Year by year Mr. Anthony Waterer, of the Knap Hill Nurseries, Woking, makes a great display of these beautiful flowering shrubs in Hyde Park. The best sorts noted on a recent visit were:—White and other shades: *Sapho*, white, distinctly blotched with maroon; *Helen Waterer*, centre white, edged with crimson; *Duchess of Connaught*, white, yellow spots, very showy; *album elegans*, blush, changing to white, fine shape; *The Queen*, the description of the previous variety exactly applies to this sort; *Princess Mary of Cambridge*, light blush, deeper edging; *Lady Grey Egerton*, silvery blush, splendid truss and foliage. Purple: *Purpureum elegans*, a very fine flower in this particular shade of colour. Crimson and scarlet: *Michael Waterer*, crimson, spotted, fine; *John Waterer*, free-blooming, dark crimson; *H. W. Sargent*, crimson, enormous truss; *barclayanum*, deep rosy crimson; *J. Marshall Brooks*, rich scarlet, with a bronze spot, a striking flower; *Martin Hope Sutton*, scarlet, richly marked, distinct and very fine. Pink and rose, &c.: *Mrs. Mendel*, pink, each petal rayed white, yellow centre; *Concessum*, clear pink, light centre, beautiful; *Kate Waterer*, rose, yellow centre, very

showy; *Mrs. R. S. Holford*, rich salmon truss, large and beautiful; *Lady Eleanor Cathcart*, pale rose, spotted chocolate; *Stella*, pale rose, with an intense chocolate blotch; *Mrs. W. Agnew*, pale rose, yellow centre; *roseum elegans*, an old and general favourite; *Marchioness of Lansdowne*, pale rose, with an intense black spot, one of the most distinct varieties; *Mrs. John Penn*, salmon-pink; *W. E. Gladstone*, pink, fine truss; *Mrs. Arthur Hunnewell*, pink, primrose centre, very pleasing. Lilac: *Everestianum*, rosy lilac, spotted and fringed, an excellent free-blooming sort; *Mrs. Harry Ingersoll*, deep rosy lilac, greenish centre. Mauve: *Pastucum flore-pleno*, a flower of this colour bearing immense trusses of double flowers.—Qvo.

Aubrietias.—I have seen a Fire King growing at Long Ditton Nursery in previous years, and thought it the most richly coloured of all the Aubrietias. The habit then was excellent with respect to seedlings. Not all varieties produce seed freely. The very best for that purpose was a

lasting Pea for decorative purposes. Not only are the flowers much larger than those of the ordinary type, but a spray can be cut with a dozen and more expanded blossoms on a stem. It is possible to grow this Pea in pots under glass for early blooming, and in the open for a later supply, thus securing two successive cuttings. Fine as this Pea is in the open, it is magnificent under glass.

Osmanthus ilicifolius purpureus. Some bushes of this evergreen shrub are just now objects of interest and beauty in the Chiswick Gardens of the Royal Horticultural Society, and they mingle their coppery red tints with the vernal green of other evergreen shrubs in a most attractive manner. It is scarcely to be wondered at that it is sometimes mistaken for a Holly.—R. D.

Messrs. Dobbie and Co. write: "We have just purchased 60 acres of fine freehold land in the Essex seed-growing district. It lies alongside the main Great Eastern line, and is close to



TUFTED PANSIES IN A ROCK GARDEN.

(Note the dwarf tufted growth of the plants and the profusion of flowers.)

rich reddish violet-coloured variety I found in a batch of seedlings from Henderson, which was put into commerce as *A. violacea*, and none other ever equalled it in seed production. When seedlings were raised the majority would be of the hue of colour of the parent; some would be lighter, but hardly ever was one better. Still, as to colour and form, as well as in floriferousness, the effect of masses was very striking. I had to grow it largely for seed production on level and rather retentive soil, and the winter frosts would often nearly kill the shoots, but soon it would break up and then become literal masses of bloom 15 inches to 18 inches across. Dr. Mules very much resembles what *A. violacea* was fifteen years ago, and for all I know may be now. To do Aubrietias justice they should be planted to run over stone or rock work, as they rejoice in such positions, and in time become cascades of growth and colour.—A. D.

Lathyrus latifolius grandiflorus albus.—What a fine grower this Everlasting Pea is, and what a superb plant for cutting from! A white Everlasting Pea such as the above, which was recently distributed by Hobbies and Co. (John Green), Norfolk Nurseries, Dereham, comes as a great boon to those who use the white Ever-

Marks Tey Station. We intend removing our seed-growing operations from Orpington to this new place next season."

TUFTED PANSIES (VIOLAS) AS ROCK PLANTS.

THE Tufted Pansies as plants for the rock garden are not so well known as they deserve to be. Among the many plants that are freely used in the rock garden, the Tufted Pansy is one of the best. They make a long-continued display, often flowering from March till October, and even later in some seasons. Modern raisers have fortunately given us a race of plants of better growth in every way than the older sorts for the rock garden; it is more compact. Tufted accurately describes the habit of the more modern sorts, and as the tufts are studded with charming blossoms, in most instances free from the rays, which are always associated with the older types, a keener appreciation of the rayless flowers naturally follows.

The rayless Tufted Pansies are more refined than the rayed forms. The colour, too, is much better represented, many pleasing intermediate shades now being obtainable.

It is with plants of this description that so many charming effects can be created, the work being simplified by the wealth of sorts now within the reach of all. No grower has done so much within recent years to popularise the Tufted Pansies as Mr. William Sydenham, Tamworth, Staffordshire. His Pansy gardens are always an interesting sight when they are in flower. The illustration shows the free flowering character of the plants when grown in the rock garden. As may be seen ample space is given for the full development of each plant, the pieces of rock being arranged in such a way that a cool root run is afforded, and plenty of soil also. These are two points which the grower must always recognise if his efforts in planting a rock garden are to end successfully.

Mr. Sydenham has raised many new Tufted Pansies, and he is always on the look out in his beds of seedlings for those adapted for special purposes. The Violettas, or miniature-flowered varieties, are specially adapted for the rock garden, and in addition to those raised by the late Dr. Stuart and others, Mr. Sydenham has a small and interesting collection of his own. A variety named Pigmy is a pretty little blue flower with a yellow eye and rayless, possessing a beautiful habit, and flowering profusely for many months. Robin is a rather small flower of a blush colour, each plant being literally covered with a mass of blossoms, in this instance with short flower-stems. Walter B. Child is a very dainty flower with a white rayless centre broadly margined with a lavender colour. The plant has a good habit, and is also very free flowering. Quail is a slight improvement on the last named, and there is room for both sorts. Minnie Warren is a charming blush-lilac miniature of beautiful form, and on long flower-stalks. The plants in this instance are very small, and rather later in flowering than the others, but it is extremely pretty. Forget-me-not and Diadem are two new sorts, somewhat in the way of W. B. Child, but worthy of inclusion in this selection. Violetta, the original of the type, is invaluable; it is a rayless white, suffused with yellow in the centre and very sweet scented.

The foregoing are a few of the miniature flowered sorts suitable for the rock garden, but many of the larger-flowered Pansies are suitable for this purpose.

D. B. CRANE.

BOOKS.

Hand List of Coniferae.*—The first edition of the "Hand List of Coniferae" grown in the Kew Arboretum has been exhausted for some time. It is now republished after having been carefully revised and enlarged by the addition of names of numerous species and varieties which have been added to the collection since the first edition was prepared. For the revision Sir W. T. Thiselton-Dyer is indebted to Dr. Masters, F.R.S. The coniferous plants now enumerated include 246 species and 451 varieties, or some 700 "sorts" in all. In the first edition it was stated (page 16) that *Ginkgo biloba* is apparently nowhere known in the wild state. Several fine specimens have since been found by Mrs. Bishop in the magnificent forests which surround the sources of the Great Gold River and the smaller Min, in Western China, and also in the forests of Central Yesso, Japan. Measurements of several exceptional specimen trees made by Mr. Bean in the Royal Gardens are given, and no less than ten exceed the dimensions recorded in the report of the Royal Horticultural Society's Conifer Conference in 1892.

Sweet Violets and Pansies and Violets from Mountain and Plain.† This is the latest addition to the *Country Life* Library, and after a careful perusal of its contents must be acknowledged a distinct acquisition to horticultural literature. The book should meet

the doubts and difficulties as well as the needs of those who have an interest in these charming flowers, and as the subjects treated have never been so well considered before, this new volume deserves to be widely read.

As the title of the book denotes, the genus *Viola* is dealt with in a most comprehensive manner. The editor in the preface is careful to explain that "it is not the work of an individual, but is the outcome of information willingly given by those mentioned . . . and of the many articles that have appeared in *THE GARDEN* during the past few years." Kindly reference in the preface to those who have accomplished praiseworthy work in the past with the show and fancy Pansies is made, several of the early workers being mentioned by name. The great work of Dr. Charles Stuart, of Chirnside, is recalled, and a well-earned tribute paid to his unceasing labours to gain new and beautiful forms of the Tufted Pansy. Much of the present popularity of the latter type of the flower the editor rightly attributes to the encouragement given to its culture by Mr. William Robinson. Other enthusiastic raisers and cultivators are also mentioned. Violets of mountain and plain are very fully dealt with, each of the species being described in detail. A most welcome feature is the chapter devoted to Sweet Violets, this contributing much useful information, of which too little hitherto has been heard.

The garden Pansy is the opening chapter, and in it is traced the evolution of the flower. The reader is taken back by Mr. R. Dean to 1813-14 when Lord Gambier and his gardener, Thompson, began experiments with *Viola tricolor* of the fields. The results of their numerous experiments are given in considerable detail, and show how much time was spent in the early days in trying to improve these flowers. Subsequently, about forty years ago, Mr. John Fleming created a sensation at Cliveden, Maidenhead, by his huge beds of Pansies. He will be remembered as the raiser of the Cliveden set. We can fully endorse the remark that the "show Pansy was regarded as one of the most interesting of 'florists' flowers from the forties until the early eighties," but take exception to the expression that they "are seen also at the present day." The show Pansy is never seen out of Scotland, except, perhaps, in those counties immediately south of the Border. The characteristics and properties of the show Pansies are clearly defined and a selection of the best sorts given. Methods of culture and the question of insect pests and their eradication receive due attention.

The fancy Pansy receives a larger share of attention, as its more showy and interesting character well merits. In speaking of the fancy Pansies of English production, the contributor says: "They are so refined and so distinct from the fancy type; they are generally of vigorous growth and remarkably free blooming, so that it is not to be wondered at that they should be rising in popular favour, though the large, gorgeously blotched fancy varieties still dominate the gardens. As they are not restricted as to character by a schedule of arbitrary properties which govern the English show varieties, anything which can lay claim to form, size, stoutness of texture, and brilliancy of marking can be comprehended in the fancy section." Those who prize the Pansies for their value in the garden have every reason, therefore, to be pleased that the fancy Pansies "are not restricted by a schedule of arbitrary properties." A brief history of this type of the flower with a useful selection of varieties is given, as also are the properties of the fancy Pansy by Mr. Alexander Lister. Notes on raising seedling Pansies, and propagation by cuttings and also by division, give useful and practical cultural information.

"Pansies at shows in paper collars" has a short chapter to itself. We are quite in sympathy with the opening remarks, which read as follows: "Pansy shows are not the terrifying spectacles of a former age, although there is something to be said for the old school florist, who loved regularity of form and flower marking, but the petals in their paper collars were grotesque. Such exhibitions conveyed one lesson—'how not to show Pansies.'"

Chapter IV. deals exclusively with the tufted Pansy, which the heading explains is commonly called *Viola*. No less than thirty pages are needed to treat fully so beautiful a plant for our gardens. The proper definition of Tufted Pansy is clearly laid down, and this should assist materially in securing for this type of the flower a proper English name. Their propagation is carefully explained, several excellent illustrations of good, bad, and indifferent cuttings, &c., being given. Propagation for both spring and autumn planting, methods of making cuttings and cutting-beds, and many other details, each of value in its season, shows how thoroughly practical the advice is. We are glad to see that "coddling" the plants is not advocated, and can heartily support the fact that "Pansies, however, it must ever be remembered, are quite hardy, and therefore need no protection." Raising seedlings, as the writer remarks, is a "fascinating pursuit," and one never knows what a batch of seedlings may produce. This aspect of culture is worthy of more attention, and if the best results are to be obtained and one has no seed of one's own saving it is "of first importance to purchase seed collected from the finest varieties," which only a specialist can supply.

"An appreciation of the Tufted Pansy" is pleasant reading, and gives a good idea of what can be done with these plants. Pansies as cut flowers in summer, in rock and wall, in town and suburban gardens, and treatment of Pansies received by post, show the scope of this book. Selections of rayless and rayed varieties, the charming miniature flowered sorts, and a list of some of the best margined and fancy Tufted Pansies add considerably to its value.

Chapter V. is somewhat unique in that it deals with "Violets from Mountain and Plain," an aspect from which little is said and much less is known of the genus *Viola*. Most interesting information is forthcoming under this heading, and might well be taken to heart by enthusiastic gardeners who desire to achieve improvement. On page 58 we read: "It must be admitted that the Violets in general are either unknown or unheeded, and the hybridist seems to ignore the great possibilities of creating a new race, by crossing one or more of the species from the mountains of Europe. . . The material is here for some zealous worker to take in hand and give to the gardens of generations to come floral joy and comfort, more so even than from those who have worked diligently in the past." This chapter must be considered a valuable contribution.

The chapter on "Sweet Violets" is a most welcome feature in this interesting book. The subject is well treated, and cannot fail to impress readers with its practical value. "Violets in the Garden," "Soil," "Position of Beds," "Raising Young Plants," "Varieties for the Open," "Double Violets in Frames," "The Start," "Summer Management," "Violets during Winter," and "Selections of Double and Single Violets," are some of the sub-headings.

A useful little index is given at the end of the book, and the illustrations are plentiful for a work of this kind. The book is well got up, and the type is good and clear.—C. A. H.

ROSE EXHIBITING FOR BEGINNERS.

In this article I shall endeavour to give the beginner a few hints on exhibiting Roses. One of the first things he should study is the form of a good flower. Should he belong to the National Rose Society he will find that in their catalogue three excellent examples are given of what a good Rose should be. If he visits a Rose show and makes a close survey of the premier boxes he will find that it is not always the biggest Roses that have obtained honours, form and freshness of colour coming first; size afterwards. On receipt of the schedule of the exhibition he proposes to enter for, he will, as a rule, find classes in it to suit both the big and little man.

* "Hand List of Coniferae" grown in the Royal Botanic Gardens, Kew. Sold at the gardens. Price 3d.

† "Sweet Violets and Pansies and Violets from Mountain and Plain." Written by several authorities, and edited by E. T. Cook. Published by George Newnes, Southampton Street, Strand, and at the office of *Country Life*.

The thing for him to do is to go in for the lowest class and gradually work upwards as success comes. We are all apt to think our Roses are prize ones at home, but when put against others we have sometimes to alter our opinion. There is quite as much honour in a little man winning in a class for six as the big man in a class for twenty-four. When

CUTTING THE BLOOMS

it is best to do so the evening before between six and eight o'clock. They last longer than when cut on the morning of the exhibition. Do not carry them about on a tray, but have some tins of water in a box and put them in immediately, transferring them to a cool room. Put them in the show box temporarily and leave the lid open a little and defer the final fixing up until the exhibition is reached. Cut with as long a stem as possible, and gently tie the centre of the blooms with double Berlin wool, as this prevents too quick expansion and enables them to travel better. In arranging, always put the largest flowers in the back, the best at the corners, the medium ones in the middle, and the smallest in the bottom rows. If the weather is hot I find a piece or two of ice placed on the moss very beneficial, it helps to preserve the flowers. Take as many spare blooms with you as possible. Arrive at the exhibition early, get the card from the secretary, and place the box in position, leaving the lid about 2 inches open. Then wander round the tent and watch some of the old hands setting up. It is very interesting, and one will learn more from seeing others than from any written directions.

On no account keep opening the box and looking at the flowers. You will probably see a brother exhibitor keep arranging and rearranging his flowers—let him—leave yours alone until about three-quarters of an hour before the time arrives for clearing the tent, then put the box in order, see there are no duplicates, and that the labels are neatly written. With a camel-hair brush gently brush the outer row of petals outward, and loosen the ties a little, but do not remove them until just before the tent is cleared, as some of the thin varieties like Captain Hayward have a very bad habit of bursting at the last moment. Have the spare blooms quite ready to replace if necessary. You will now have to retire to await the judge's decision. You may have the pleasure of seeing your box marked "First Prize," perhaps that honour may be deferred for another occasion. Never mind; make up your mind to try and go one better the following year. It sometimes happens when one has entered for an exhibition that there are very few blooms to draw from owing to the season, and one doubts the wisdom of exhibiting. If it is possible to make up the box, by all means exhibit. Your brother exhibitor's flowers will probably be like your own, and the chances will be the same. One, too, often hears the remark, "What is the good of my exhibiting when I have to compete against the professional gardener." To a very great extent that is a mistake; the gardener has too many other things to think of. He cannot give the attention to his Roses as the man who grows his own, who coddles, feeds, and nurses them himself, who loves them, and gives them the whole of his attention.

Enfield.

C. PAGE.

CLOTH OF GOLD ROSE.

THIS is not a Rose for outdoors in all parts of the kingdom, but Rose growers, we think, will be interested in the accompanying illustration,



CLOTH OF GOLD ROSE IN BASUTOLAND.

which depicts it growing in Basutoland. The flowers are large and soft yellow in colour. Mr. Crook, writing in *THE GARDEN* of May 6, 1899, says:—

"The bright, shining, smooth foliage and large, soft yellow flowers with deeper centre and sweet scent, place this Rose amongst the best yellow forms. There used to be a fine specimen of it growing on a warm south wall, the roots running under a gravel walk, in the gardens at Farleigh Castle, near Bath, forty years ago. In this position it bloomed abundantly. I am aware it does not bloom satisfactorily in the open except in a few favourable situations, and is not to be recommended for general planting in the open; but for growing in a cool house and trained close to the glass nothing could be more beautiful. It is growing in this way at Cricket St. Thomas, near Chard, in a Camellia house. The plant is an old one, having a stem as thick as a man's arm, the roots in a hard soil. In this position the wood ripens well and flowers very freely every year during March and April. It deserves to be more grown under glass, and is quite as satisfactory as *Maréchal Niel*, all points considered."

ROSES IN ALDENHAM HOUSE GARDENS.

GROUPING ROSES.

THOUGH not a new method, the arranging of suitable Roses in groups in various parts of the ornamental grounds has much to commend it, as when once the sites have been decided upon and the ground well prepared these give very little trouble compared to the effect produced and the wealth of blooms, which may be cut all through the season. The ends of shrubberies or banks form admirable positions to grow them in, choosing, of course, the most sheltered places. Time will be well spent in giving the plants a good start by taking out the old soil to the depth of about 18 inches and adding good turfy loam, road scrapings, and plenty of good farmyard manure, and at the same time see that the beds are properly drained.

Early autumn is the best time for planting. The growths should be well pegged down and they will require little pruning. At the same time give a good mulching of horse manure. The young shoots will also require to be pegged down once or twice during summer, and after the ground is well covered allow them to grow away as naturally as possible. One or two applications of insecticide should be applied to keep them free from insect pests, and during long spells of dry weather give good drenchings of liquid farmyard manure. During winter the more tender Roses can be easily protected, first by heaping some light porous soil over the crown of the plants, and a little light long litter or Bracken placed over the growths will render them safe till spring.

Pruning.—A judicious thinning of the weakest shoots should be done annually, but not too severely. Apply a good dressing of loam and half-decayed farmyard manure, thoroughly peg down, and the work is finished till the young shoots require attention as before mentioned. Choose as much as possible varieties which do well on their own roots, as when worked on other stocks the suckers often give much trouble, and unless carefully watched for and removed do much damage to the plants. I append a list of some of the varieties which do best here, and are particularly well suited for this purpose:—

Bengale Hermosa.—One of the most delightful Roses I know for this purpose. It is so cheap that it is within the reach of all, perfectly hardy, does well in any position, and continues to flower in great profusion from early spring till quite late in autumn. I have in mild seasons seen good blooms on our beds at Christmas, and it is also sweetly scented. This variety is suitable either for the trimmer parts of the garden or for the semi-wild portion, such as the wilderness or woodland walks, where ground game does not abound.

R. Cramoisie Supérieure.—An old favourite of much merit, and only seen at its best when planted in good-sized groups. It is among the brightest of anything I know, and can be seen from a great distance, the foliage being

particularly attractive. It is not a very strong grower, and therefore should be planted rather thickly. It is very free, continues to bloom through the season, and makes an admirable group in a shrubby bed.

R. alpina pyrenaica.—This is very little known or grown, though a fairly good grower with us. The flowers are small and not of much value, but the foliage assumes lovely tints in autumn unsurpassed by those of any other variety I know, and the bright red spines and wood during winter are very telling. Should be in every collection.

R. rubrifolia.—Much grown on the Continent for forming hedges, for which it is admirably suited. It is very robust, and the beautiful plum-coloured foliage and wood are highly attractive, especially the points of the young shoots in summer, and during winter the wood retains the same distinct colour. We have grouped it in several places and kept the growths pegged down, but not too formally. When treated in this way it makes a distinct and pleasing object; the flowers are insignificant, but the fruit is large and showy. Well suited for any position in the pleasure grounds. The small

Polyantha Rose Perle d'Or is another favourite here, and when well established forms charming groups and produces thousands of its perfect little blooms all through the summer and autumn.

R. Mme. E. Resel.—This Hybrid Tea, though none too hardy, is also admirable for the purpose. The several varieties of

Rosa rugosa are also well adapted for grouping in bold masses. These should not be pegged, but allowed to assume a natural habit, severely pruning them during spring. They should be planted in as large masses as possible in separate colours. The best for this purpose is the semi-double white *Blanche Double de Coubert*. The perfume of the flowers is most refreshing, and the large fruits are also beautiful during autumn. There are many other Roses which lend themselves for such planting equally well, but those enumerated are among the best.

PILLAR ROSES.

Good pillars of Roses are so useful for both small and large gardens that it is not surprising their culture is increasing. Even in quite small gardens, where ground space is of the greatest consideration, they may be grown to perfection without taking up much room, and larger quantities of Roses may be had in this way as compared with other methods of culture. In large places these Roses, when boldly planted, make pictures of colour about the shrubberies not easily forgotten.

But they must be liberally grown. Something more than driving in a long stake and training them to it is required. Stout Larch poles 6 inches to 9 inches in diameter and from 10 feet to 15 feet out of the ground should be fixed in, being well supported by three stout struts to not only strengthen them, but for appearance sake, as these form a kind of base. When well clothed they are very pleasing, and will last many years. The ground should be well prepared by introducing good loam and manure, and the plants well mulched each season. An annual thinning of the growths in early spring will be required, and the growths should be securely nailed to the poles. Free-growing varieties will clothe these in two seasons.

There are now a large number of varieties for making pillars, but the following can be most thoroughly recommended:—*Leuchstern*, rose-pink; *Carmine Pillar*, single, carmine; *The Dawson*, rosy pink; *Setigera*, deep rose

and late; *Paul's Single White*, Pink Roamer, very free, rose-pink; *Sinica Anemone*, single, silvery pink; *Thalia*, white; *Euphrosyne*, pink; *Aglaia*, canary yellow; *Vivid*, crimson; *Una*, creamy white; *The Lyon*, rich crimson; *Felicite Perpetue*, creamy white; *Myrianthes Renoncule*, blush edged rose; *Alister Stella Gray*, yellow; *Multiflora*, white; *Moschata alba*, white tinged pink; *François Foucard*, lemon yellow; *Claire Jacquier*, nankeen yellow; and *Celine Forestier*, sulphur yellow.

E. BICKETT.

Aldenham House Gardens, Elstree, Herts.

THE FLOWER GARDEN.

LILY FAILURES IN 1903.

LAST year was not at all a favourable one for Lilies, and the many lovers of this beautiful class congratulated themselves on the fact that the Lily conference was held in the previous year, when Lilies on the whole did well. The present year is likely to be even more disappointing, for in many districts the early Lilies at least have been comparative failures, and many of the later ones are already showing signs of disease. The sharp spring frosts left their mark on many, particularly on the Japanese *L. Hansonii*, which is one of the easiest of Lilies from that region to establish here; but, unfortunately, it starts into growth so early that the frosts often destroy the flower-buds. Out of a number of this Lily recently noted, which even last year flowered well, and early this spring gave promise of a beautiful display, there was not one single expanded blossom, the buds having all perished. Many other Lilies suffered also, but to a much smaller extent than *L. Hansonii*, though in moist districts *L. Henryi* has a most unhappy look. *Lilium auratum* is a most tantalising species, and failures in its culture far more than outweigh the successes. All attempts to grow this Lily as a remunerative crop, either in this country or in Holland, have failed completely, hence we are still compelled to obtain bulbs from Japan, where disease is certainly far more prevalent than it was a few years ago. The result of this is to be seen in the increased mortality during the voyage, and in the number that never make their appearance above ground after planting. At the Chiswick conference Mr. George Massee read a paper on the different Lily diseases, but he did not touch upon an ailment, fungoid or otherwise, which often plays such havoc with *L. auratum*. This frequently attacks the most vigorous examples, and is first shown by the plant suddenly ceasing to grow, then the top bends over, the buds drop, and soon afterwards the leaves follow. A brown stripe frequently appears on one side of the stem, and from this the leaves are the first to drop. It is generally referred to as sunstroke, but whether this is the direct cause is a matter of opinion. It is certainly, as a rule, most prevalent during showery weather, when hot suns are alternated with heavy rains; but this year the rains without the sunshine seem to have been sufficient. Probably the low temperature of the soil combined with the wet has much to do with the matter. A strange feature of this disease is that the bulbs are not affected, as if dug up directly the stems die down not only the bulb itself, but the roots will, as a rule, be found in good condition. To fight this ailment various devices have been tried, the most effectual being to plant the bulbs among low growing shrubs, so that the basal portion of the stem

from whence the roots are produced is shaded from direct sunshine; but even this is not always successful, though it is undoubtedly helpful.

EVILS OF LATE PLANTING.

Another matter which has a great deal to do with Lily ailments has formed the subject of many notes, yet it is ignored as much as ever. This is the late season at which the bulbs are planted, for if they are kept out of the ground too long not only does the substance of the bulb suffer, but the basal roots, which are the first to form, are few and weak compared with those on bulbs planted earlier, and consequently when the greatest strain comes many of them succumb. At all events, the experience of several years is that the mortality among late-planted bulbs is far greater than among those planted at the proper season. That the climatic conditions of this country do not supply all the requirements of the different Japanese Lilies is shown by *L. odorum*, *L. Krameri*, and *L. rubellum*. None of these ever become thoroughly established, so that it is necessary to keep up the supply by annual importation. True, a few may be sometimes coaxed to flower the second season, but very rarely afterwards. However treated, the bulbs seem to suffer from an excess of moisture, which lodges at the base of the scales and forms the seat of decay. Very frequently a bulb will be to all appearance quite sound, and on being touched will fall to pieces, the scales being all clean and fresh, except just at the extreme base. The best antidote for this is to plant them between low-growing shrubs, as they serve not only as a protection from harsh winds when young, but the roots tend to absorb any excessive amount of moisture. Even with these precautions the Lilies just named are decidedly short-lived. *Lilium Brownii* of gardens needs the same treatment, but it is more robust, so that it will often succeed where the others fail. A few years ago a change in planting these delicate Lilies was advocated, viz., instead of placing the bulb upright and surrounding it with sand it was to be laid on its side to prevent the accumulation of moisture at the base. After being well tried, however, this has not turned out a success.

Lilium longiflorum, well as it does in some of the southern counties, is a comparative failure in many of the northern ones, the wet and cold winter being too much for it. True, bulbs imported from Japan will flower well the first season, after which many of the bulbs split up into several small ones, and they seldom gain sufficient vigour to flower, particularly if the situation is at all cold and damp. *Lilium speciosum* even this season looks well in many places, though a few have gone off here and there, in the way that *L. auratum* does.

THE WHITE LILY.

No notice of failures in Lily culture would be complete without mention of that charming species, the white or Madonna Lily, which has in many places fallen such a prey to disease. According to Mr. Massee this is caused by a fungus (*Botrytis cinerea*), a near ally of which has proved very destructive to the plantations of *Lilium Harrisii* in Bermuda. Various measures have been tried to prevent it, the most effectual being to spray the plants with potassium sulphide dissolved in water. This authority just mentioned recommends 2oz. of the potassium to be dissolved in 3 gallons of water. In some country districts where allowed to remain untouched this Lily may be seen in all its vigour, while in others it is

quite a failure. Large numbers of bulbs are sent to this country every year from the south of France, and in many cases this fungus has been introduced in places where it was before unknown, for these French bulbs are as a rule badly infested with the spores. Wet and cold weather greatly assists the spread of this fungus, so that it may be understood that it has this year asserted itself strongly in many places.

By some cultivators several members of the Martagon group are regarded as comparative failures, as they give poor results the first season after planting. Two of the most pronounced in this respect are *L. chalcedonicum* and *L. szovitzianum*, which will often scarcely appear above ground the first season, but continues to improve afterwards. Both these Lilies have very stout, deep descending roots from the base of the bulb, but no stem roots, hence until they are well established the results are likely to be disappointing.

Lastly, in the list of Lily failures may be mentioned several species whose non-success is owing, not to any particular disease, but to the climatic conditions being in some way or other unsuitable to them. For instance, where do we find established plants of *Lilium avenaceum*, *columbianum*, *Leichtlini*, *maritimum*, *parvum*, *philadelphicum*, *pulchellum*, *rubescens*, *tenuifolium*, and *washingtonianum*?
H. P.

AMONG THE SWEET BRIARS AND WICHURAIANA ROSES.

How strange that it was reserved for a judge of the Law Courts to give us the delightful June Roses known as Penzance Briars. How we should miss their delicious fragrance and their great vigour. What delightful variations one may make in one's garden by the help of these beautiful Roses. Arches and lofty pillars may be wreathed with them, and hedges as impenetrable as Holly may be formed, while in isolated groups they are perhaps seen in their most charming phase. What picturesque features are possible by the aid of a little wirework.

I have known standards to be formed of these Roses by making a wirework contrivance with spreading head, the Briars between entwined around the stem, and when they reached the top the shoots were spread outwards, thus making a flowering stem and head. I enjoy Penzance Briar Roses with outspreading branches bent down by the weight of blossom or flinging the long sprays over some bank or water edge.

Has anyone sown the seed of these Roses? If not, I would advise them to do so. I believe the hybrid nature will manifest itself in the offspring for some time to come. And, again, how easy for someone with leisure to carry on the good work of adding greater and more distinct variety by crossing some of the best of existing Roses. Even in the uncrossed seed one will obtain some useful variations. Then there are the

WICHURAIANA HYBRIDS,

even more remarkable than the last-named. I am very optimistic as regards the future of this group, especially as we are obtaining some that are autumn blooming. It is remarkable that the type blooms much later than the hybrid offspring. Now if we can alter this we should gain some late-flowering climbers, which would be very welcome, and apparently this is possible, as it is manifest in the variety *François Foucard*, a hybrid between the type and *Noisette L'Idéal*. But as it is these June bloomers lend themselves to most artistic arrangements, such as trailers for festoons or as weepers, and the only point that I am doubtful about is that too much will be attempted, with the result that the variety will be unappreciated through its indifferent flowers. I consider they should be cut in pretty hard now and then, say every second year, so that a quantity of new growth is promoted.

I do not see why many of these free-growing Roses should not find a home in the herbaceous border. We all know how well *Crimson Rambler* can be so utilised, and why not *Jersey Beauty*, *Dorothy Perkins*, and *wichuraiana rubra*, so deliciously fragrant, or *Reine André*, also sweetly fragrant.

A year or two ago I saw at Kew some charming hybrids of *wichuraiana*. There were some crossed with *Rugosas*, others with *Mme. Plantier*, and others with *General Jacqueminot*, and very pretty they were. One is always reluctant to add to the

already overburdened collection of Roses, but I think if we can obtain rambling Roses, hardy and free in growth, that they would be warmly welcomed.
PHILOMEL.

A GREAT MARKET ROSE NURSERY.

THE Rose in these days is grown on an immense scale on commercial lines for the supply of the ever-increasing demand for Roses in this country during winter and spring when the out of door supply is exhausted. Those unacquainted with the suburbs of London and other large cities cannot have the faintest idea of the magnitude of many of these glass establishments devoted mainly to the growth of the queen of flowers. When we consider the popularity of the Rose in England, that it is the flower most loved of all, a flower that is always welcome, and one whose fragrance and beauty can be enjoyed every day in the year, it is scarcely to be wondered that so much enterprise has been launched in favour of its growth under glass. I have on several occasions in years past visited some of the gardens of this description, and always derived pleasure and instruction from my visits, and I would like to bear testimony to the intelligent, courteous, and straightforward way I have always been received by the owners and managers of those establishments, and the frank and unhesitating way in which they communicate their technical knowledge in the growth of the subjects in which they so greatly excel.

It was only a few days ago that I had the pleasure of visiting one of these large establishments for the first time, the property of Mr. Lowe and his partner Mr. Shawyer. It is situated about halfway between the pretty village of Hillingdon and the old and interesting town of Uxbridge in Middlesex, distant from the latter place about a mile. On approaching the garden the subject first to arrest the visitor's attention is what appears to be a forest of timber erections—posts and rails without apparent ending. On closer approach the ground on which these erections were fixed was seen to be planted with hundreds of thousands of *Chrysanthemums* in batches of early, mid-season, and late varieties, and the utility of these erections then became apparent. They are erected for the purpose of supporting portable lights, which are placed over the plants when frost approaches. With this temporary glass roof and the outside of the quarters protected by tiffany, these quarters are transformed in an astonishing short space of time into houses quite impregnable to ordinary frosts, and as an adjunct to the practical value of these erections in the cultivation of the Rose and many other flowers out of doors.

I was much interested in the use made of the principle of heating erections with

PORTABLE BOILERS AND PIPES.

On the approach of exceptionally severe frosts or occasions of much rain to prevent damping, and also to hasten the maturity of crops, the application of heat by this principle to any desired plants is only the work of a few minutes. The visitor who may call at one of these establishments expecting to see the many beautiful associations surrounding a private garden will receive a very painful shock. He will see rather a



A HOUSEFUL OF MRS. JOHN LAIN ROSE IN MR. LOWE'S NURSERY AT UXBRIDGE.

manufactory, where the production of Roses or other flowers is reduced to a system as complete as that of the brickmaker turning out bricks from his yard. All sentiment is eliminated.

PACKING THE ROSES.
The first structure we entered was the packing shed. This was practically full of cut flowers, mostly Roses, all being bunched, packed, and prepared for market by an army of men, young women, and boys, a very pretty and delightful sight. I asked the manager if the flowers were chiefly intended for Covent Garden, and also if there was any difficulty in disposing of such vast quantities daily. He replied that no difficulty was found, and that markets all over Britain were supplied, and incidentally he remarked how useful a service the costermonger and the flower girl rendered the flower grower and the public by disposing of the third-rate produce at a cheap price in the streets. All the glass houses in this establishment are built of timber and glass, which are not so costly or permanent, of course, as when bricks are used for a base. Many of those I saw had been erected for upwards of ten years, and with ordinary attention to repair looked like lasting another ten years. They are open roofed, and run from 140 feet to 150 feet in length by 12 feet or 14 feet in width.

There are scores of these, covering on an aggregate from six acres to seven acres. The soil here is a strong loam, partaking very much of the character of the land in the neighbourhood of Slough and Langley, near to which is brick earth verging on stiff marl, and from which the famous bricks of this district are made. The Roses are planted in the natural soil, well enriched with manure and deeply and well cultivated. The system on which

THE ROSE IS CULTIVATED
at these gardens is simplicity itself. The varieties are few, and confined to those colours popular in the market and that are good growers, and carry bold, large, upstanding flowers. Every Rose planted is propagated on the place, and it will surprise many to know that good strong plants filling 5-inch pots with healthy roots and ample foliage fit to plant out in the permanent beds can be manufactured in thousands in the short space of three months.

They are grafted on the Briar stock in heat in the propagating house in March, and by the middle of June or earlier the best of them are ready for planting out. Here none are grown permanently in pots, but all are planted out in the centre of the house, leaving a path running round on either side, with borders planted at the side as well. A great number of these houses are well heated for the production of early Roses, others partially heated, others without heat at all, and some planted in the open, in the temporary timber erections for portable glass lights only, thus securing a long continued succession of splendid flowers without a break, and this

all the year round with the help of the many acres grown out of doors for summer and autumn supply. The Roses under glass during their growing season are liberally supplied with water, and frequently helped with artificial manure stimulants. I am not aware of there being any special Rose manure on the market, but Clay's is much favoured.

CUTTING THE ROSES.
Much importance is attached to this, and only by practice can the right time be chosen for the flower to be cut so as to reach the market in the most perfect state. Importance is now also attached to the practice of cutting a long stem with the flowers, often 2½ feet long, preserving its natural grace and beauty when artificially arranged, instead of dumping it down on squat stems as used to be generally the custom. The Rose is placed in water immediately it is cut, and it was a new practice to me in some of these gardens I visited to see the flowers gathered, men taking with them a flower-pot partly filled with water to place the flower shoots in, instead of the usual basket in universal use. By taking this precaution the chance of the foliage or flower flagging is reduced to the greatest possible minimum, and must greatly help to prolong their bright and fresh appearance.

VARIETIES.
In pinks Mrs. John Laing still retains its well-earned popularity as being one of the very best. Its large flowers are borne on bold, erect stems, and the foliage is perfect. Mrs. Sharman Crawford, a darker shade of pink, inclined to rose, is also highly thought of and grown by the thousand; Mme. Gabriel Luizet, still one of the best all-round pinks; and La France, considered indispensable. Flesh colour: Baroness Rothschild is the most highly thought of, and is grown in large

numbers. Scarlet Roses are confined almost entirely to General Jacqueminot, and for very dark to Duke of Edinburgh. In whites Niphetos, The Bride, and Boule de Nieve, the latter grown in great quantities for wreath making. The above are the varieties grown in great bulk at this establishment. In scarlets Liberty, a new Rose of recent introduction, in the opinion of many good judges, will supplant the General for market purposes. It is a more compact and better formed flower, travels well, and the centre never opens. Other varieties favoured are Mme. Testout, Mrs. Grant, Catherine Mermet, and Abel Chatenay, Bridesmaid, and William Allen Richardson. Maréchal Niel is only sparingly grown.
Other flowers grown in large quantities are the following: Chrysanthemums, Lilies, Iris, Gladiolus, Poppies, and of bulbs, mostly Tulips, 30 tons are annually bought for forcing into flower under glass. Upwards of 100 hands are employed all the year round.
OWEN THOMAS.

NOTES ON NEW EXHIBITION ROSES.

New, as applied to Roses, is a somewhat elastic term, but I will confine my notes to the Roses introduced during 1901, 1902, and 1903, unless there should happen to be some Rose introduced before 1901 that seems to me to call for special notice. I ought to mention that I have seen growing the great majority of the Roses I attempt to describe, either in the nurseries of the trade specialists or in the gardens of our keenest amateurs. There are, however, some which it is impossible to omit if these remarks are to have any pretence of being up-to-date, but which, owing to their too recent introduction, I have not been able to see. As to these I have relied on the



ROSE LA FRANCE IN A MARKET NURSERY.

opinions of those growing them (often, it is true, for the first time), and to whom I am much indebted for the information which I now hand on to your readers.

New Roses are necessarily of most interest to the exhibitor; he it is who must continually be adding to his collection if he is to keep in the front rank, so I will deal in this article with exhibition Roses only. I am writing these notes before any Rose exhibition for 1903 has taken place, but, as I hold strongly that it is quite useless to write of a Rose as exhibited—one must see it growing not only as a maiden but as a cut-back before one can speak or form an opinion as to its merits—the fact is of not much importance.

Alice Lindsell.—A gold medal Rose, introduced in 1902 by Messrs. Dickson and Sons, and well shown by them last year. A Hybrid Tea, distinct; colour creamy white, with a pink centre; a good grower of robust habit; will doubtless become very popular. The plants I have seen look well, despite the trying winter.

Alice Grahame.—Another of Messrs. Dickson's famous Hybrid Teas sent out this year. This is one of the Roses I have not seen growing, but the raisers speak very highly of it, although it is of a colour that we have too much of among our exhibition Roses—ivory white, tinted salmony pink.

Ards Pillar.—A fine-coloured Rose; has been exhibited, but will require a cool summer; a good grower, but one that will be more in demand for garden decoration than the show-bench; undoubtedly a first-rate pillar Rose, with excellent foliage; also one of Messrs. Dickson's productions.

Ben Cant.—Some wonderful flowers of this have been exhibited by the raisers, Messrs. B. R. Cant and Sons. Its colour alone will induce everyone to try it. It is undoubtedly one of the finest H.P.'s of its colour ever raised. A good grower, with scent of the Victor Hugo type, but bolder in form. A fine bloom of it obtained the silver medal for the best Rose in the show at Brentwood, and it has also been awarded the National Rose Society's gold medal. One of the best of the new Roses.

Duchess of Portland.—A gold medal Rose of 1901 from the Irish firm, pale sulphur yellow Hybrid Tea; will, I think, be very popular amongst exhibitors. Robust rather than vigorous in growth; but one cannot have everything. Several of our leading amateurs have spoken very highly to me of this Rose. It is free flowering.

Dr. Felix Guyon.—A Tea of excellent colour. I have only seen one flower of it; colour deep orange shaded apricot. This Rose is spoken very highly of on the Continent, and was raised by A. Mari. It obtained two first prizes when first exhibited at the Paris Exhibition of 1900 for the best flower in its class, and also for the best flower of its colour; but I am afraid its shape is against it as an exhibition Rose, though no doubt it will occasionally come good enough.

Edith Dombrain.—Another hybrid Tea from Messrs. Dickson's, of last year's introduction, a fine flower as exhibited by the raisers, but the plants I have seen did not promise to grow quite as well as one would wish. Good shape, colour ivory white, with a suggestion of a flesh



ROSE MRS. SHARMAN CRAWFORD GROWN FOR MARKET.

tint. It was awarded a gold medal, and I hope for the sake of the name it bears it will be found a good grower.

Florence Pemberton.—This, I am inclined to think, will be found the best of Messrs. Dickson's new Roses of the last three years. It is being distributed this year, and no doubt there will be a great demand for it. It was awarded the gold medal at the Northern show of the National Rose Society at Manchester last year, when Messrs. Dickson staged over 100 blooms. Its form is excellent, full high-pointed centre, with fine large petals. It is a good grower, colour creamy white with a suspicion of pink. We shall undoubtedly hear more of this Rose.

Frau Karl Druschki.—This grand Rose of 1901 comes from the well-known firm of Peter Lambert, and of the many good Roses we have had from them I doubt if any one beats this variety. It is universally admitted to be the best white H.P. in cultivation. Some grand flowers have been exhibited by the leading amateurs and the trade, and it will be indispensable to all exhibitors.

Frau Peter Lambert.—A new Rose of 1902, raised not by the owner of the name it bears, but by Welter. It is described as a pink Kaiserin A. Victoria. I have heard it spoken well of (Mr. Frank Cant, that excellent judge, thinks highly of it). It is undoubtedly the best of the three sports or seedlings of K. A. Victoria sent out by this firm.

Gertrude.—Another of the Dickson 1903 Roses. I have seen it exhibited by the raisers. It is best described as a pale blush Countess of Caledon. A Hybrid Tea.

John Ruskin.—Originally known under the name of Janet Scott. A Hybrid Tea that has been exhibited for some years by Messrs. Dickson, a good flower with scent, colour rosy carmine. A good grower; last year's plants are very strong and looking well.

Lady Moyra Beauclerc.—A Rose that was exhibited by the raisers (Messrs. Dickson) some time before being placed in commerce. Its

colour is slightly against it, as it does not stand well, madder-rose, at its best on cut-backs. Still will be found useful, fine shape, very massive, but not very vigorous in growth.

Lady Roberts.—Too well known now to need description. Raised by Messrs. Frank Cant and Co., it has been in great demand. It will require a cool season for exhibition purposes, but it is a Rose that everyone will buy for its distinct colour. It was awarded two gold medals last year, which is, I believe, a unique distinction, which was, nevertheless, deserved.

Mamie.—A very pretty Rose this, bright rosy pink deepening to carmine; sent out in 1901 by Messrs. Dickson. The petals are of a good substance with a distinct yellow base. I think it will become popular when better known. It is a good grower, and can be recommended.

Mildred Grant.—The giant among exhibition Roses; a wonderful flower, and one which every exhibitor must have. Splendidly shown by the raisers, Messrs. Dickson. A very fine bloom of it was exhibited at the last Temple show (1902) by Messrs. Frank Cant and Co., where it was awarded the silver medal for the best H.T. in the show. The same growers secured a similar medal for it at Manchester. If it had only been a different colour what a sensation this Rose would have caused, but it is creamy white with a suggestion of pink, one might almost say "as before." Needless to say this Rose secured the coveted gold medal.

Muriel.—A good H.P. raised by Messrs. Frank Cant and Co., deep salmon pink; should be good this year, as cool seasons suit it. It is a good grower, and can be well recommended.

M. Paul Liede.—A bright pink Hybrid Tea with fine large deep petals, forming a beautiful outline with a high-pointed centre. A good grower and a free bloomer. I have not seen this Rose, but the above description reaches me from a well-known grower.

Milton.—One of Messrs. Wm. Paul and Son's introductions. Growing as a maiden I did not think much of it, but I am told that

it is a fine exhibition flower on cut-backs. In colour a bright carmine, reflexed silver, and good shape. It has been exhibited in fine form, and is a good grower.

Perle von Godesberg.—Another sport from K. A. Victoria, golden-yellow in colour, that I have received excellent reports of. One of Lambert's raising, and sent out in 1902. I have not grown it.

Prince de Bulgarie.—Sent out last year by Pernet-Ducher. It is a good Rose, colour rosy flesh, shaded salmon, flowers of good size and substance. It attracted considerable attention in the early part of the year when exhibited at the Royal Horticultural Society's meetings in the Drill Hall by Messrs. Frank Cant and Co., who speak very highly of it. In shape it is similar to that fine Rose *Souvenir de President Carnot*.

Souvenir de Pierre Notting.—This Rose gained a gold medal for Messrs. Prince when exhibited by them at the Rose show in the Temple Gardens last year. It was raised by Messrs. Soupert and Notting, and is best described, perhaps, as a yellow *Maman Cochet*. It is distinct and a very beautiful variety, with a fine long bud developing into an excellent flower. Its colour will make it a welcome addition to the exhibitor's box, and it is sure to be largely ordered in the autumn.

This concludes the list of those exhibition Roses that can be described as new that I have met with in some way or another. I hope to deal with the garden and decorative Roses at some future time.

HERBERT E. MOLYNEUX.

Brantwood, Balham, S.W.

ROSE NOTES.

ROSE AMY ROBSART (A PENZANCE SWEET BRIAR).

THE accompanying illustration depicts the hybrid Sweet Briar Amy Robsart upon a wall. It was planted in March of this year, and now covers a space of 10 feet by 8 feet. I think it is one of the most satisfactory of single Roses for covering a large space in a very short time.

ROSABIAN.

ROSES AND DEAD TREES.

In many an old garden there are aged fruit trees, and one hears the remark that such and such trees are dying, yet they are kept for old acquaintance sake so to speak. I have at the present time under my charge an old orchard, and my employer is very fond of the trees, and two years ago we thought we would try and turn them into masses of flowers by planting climbing Roses. I know of no better way of showing the beauty of such Roses as *Carmine Pillar*, *Crimson Rambler*, the *Dawson Rose*, *Paul's White*, *Dundee Rambler*, *Bennett's*



PENZANCE BRIAR AMY ROBSART AGAINST A WALL.

Seedling, and *Alfred Carrière*. I think one of the very best is *Electra*. Another lovely class is that comprising the beautiful *Penzance Briars*, *Anne of Gierstein* and *Amy Robsart*. We have all these doing well. I find the best way to start them is to take a hole out on the best side of the tree about 3 feet square and 2 feet deep, and fill it in with good loam, road sand, and some well-decayed manure. Leave the part where the Rose is planted a little lower than the other, so that the water does not run away from the Rose. A very good way of training is to nail some of the strongest shoots to the trunk of the tree, and as soon as they reach the branches train some of the weaker ones over these, and in a very short time the old dead tree will be a mass of bloom. J.

ROSE FORTUNE'S YELLOW AT LOCKINGE.

THIS delightful old Rose seems to have particular tastes of its own. Perhaps nowhere in the country does it flower better than at Lockinge. There it grows like a common Briar under several conditions both inside and out, and yet Roses generally do anything but well there, the natural soil being too much charged with lime. Mr. Fyfe grows this variety on its own roots. Many stout shoots upwards of 10 feet are made in a season, and all through the spring thousands of blooms are cut for decorative purposes, and whether used in the daytime or under artificial light the delicate tints

never lose their softness and beauty. Immediately the flowering season is over Mr. Fyfe prunes early so that a good, well ripened growth is made before winter. E. B.

[This Rose was illustrated in THE GARDEN of May 30, and the accompanying note should interest those who know *Fortune's Yellow* only as an indoor variety.—ED.]

ROSE PEACE.

If this proves as good a Rose as the variety from which it sported, namely, *G. Nabonnand*, we shall have a pale citron-coloured bedding Rose of rare beauty. Of the many lovely Roses Messrs. Nabonnand have enriched our gardens with there is nothing more useful or beautiful than *G. Nabonnand*.

PERLE VON GODESBERG (H.T.).

This is supposed to be a yellow sport of *Kaiserin Augusta Victoria*, but whilst granting that there is more yellow in the centre of the flower than in the parent variety, it is rather a mistake to call the Rose a yellow *Kaiserin*. I quite expect that we shall obtain a decided yellow from this valuable Rose before long, for it has decidedly sportive inclinations, which are manifest in the grand climbing form, which is one of the best climbers one could plant in a conservatory or south wall out-doors.

NOELLA NABONNAND.

This splendid new climber partakes largely of the growth of *Reine Marie Henriette*, from which it emanated, Messrs. Nabonnand having crossed this Rose with *Bardou Job*. The distinctive characteristics of the variety are its enormous petals. If they were just a little brighter I should have liked the Rose better. The purplish hue is rather a detraction, although I must admit I have only seen flowers upon young plants. I can imagine what a gorgeous sight a wall would be covered with this variety. Its fine long buds will be most useful. It is a semi-double flower, perpetual, very vigorous in growth, and cannot fail to be one of the best high-coloured wall or pillar Roses. P.

COLOURED PLATE.

PLATE 1262.

PRIMULA KEWENSIS.

PRIMULA KEWENSIS is a hybrid between the Arabian *P. verticillata* and the Indian *P. floribunda*. It originated at Kew five years ago, where the two parents are grown together in a greenhouse, the cross being due probably to the agency of insects. Seeds ripened on the plants of *P. floribunda* were sown, and amongst the seedlings was one with distinct foliage. This was grown on, and when it flowered it bore conclusive evidence of its hybrid origin. Precisely the same thing occurred two years later, the second cross being slightly different from the first. The

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"The Garden," July 4th, 1903.



PRIMULA

whole of the stock of the first cross was secured by Messrs. James Veitch and Sons, who have been most successful with it, and the beautiful batches of it exhibited by them this year were examples of skilful cultivation, and at the same time a proof of the exceptional merits of the plant. There are so many beautiful Primulas that it is not easy to say which are the best, but certainly I should place *P. kewensis* in the first half dozen. It is easily grown, of sturdy constitution, forms a shapely plant, and when at its best makes an elegant display of bright green foliage and graceful racemes of clear sulphur yellow flowers, lasting for about two months. When the flowering season is over the plants may be repotted and grown in a cool frame during the summer and autumn. In winter an airy greenhouse such as suits *P. sinensis* is the best place for them. So far no seeds have been produced by *P. kewensis*, but a stock of plants can easily be obtained by division.

The occurrence of a genuine new hybrid Primula is an event of some interest. So far as is known no one has yet raised a hybrid Primula by artificial means, although the most skilful of plant breeders, naturally, have tried.

That the species will cross is proved by the occurrence of wild hybrids and by the origin of *P. kewensis*. Nature, although she seldom puts it in practice, knows the secret of hybridising Primulas, and we come very near discovering it when we find her at work in a greenhouse at Kew. This year we have had a collection of various species of Primula in flower standing close together in a suitable house, where the conditions were, we thought, such as would lead to crosses being effected, and although this method is far less certain than that of camel-hair brush, &c., is in other cases, we may hope from what happened when *P. kewensis* was started that the same thing may happen when such species as *P. sinensis*, *P. obconica*, *P. japonica*, *P. megaseæfolia*, and of course *P. verticillata* and *P. floribunda* are placed side by side with their flowers all mingled together.

I have just measured a leaf on one of the Kew plants of *P. kewensis* and find it 13 inches long by 4 inches wide. There are a few odd flowers on the plants now. W. W.

[The drawing was made from a plant in Messrs. Veitch's nursery at Chelsea by H. G. Moon.—Ed.]

THE GARLAND ROSE.

This fine old favourite is by no means eclipsed, even by the many beautiful free-growing cluster Roses of the Rambler class that of late years have added such good things to our gardens. Its dainty warm white clusters, specially beautiful in the early morning when the buds are opening and showing their young tinting of shell-pink and flesh colour, have a charm of their own that is scarcely equalled by any other, and the blooms are yielded in the most lavish profusion.

G. J.

KEW NOTES.

INTERESTING PLANTS IN FLOWER.

Temperate House.

ACRIDOCARPUS NATALITIUS, *Alberta magna*, *Berlandiera tomentosa*, *Callistemon salignus* var. *alba*, *Gardenia rothmannia*, *Grevillea Banksii*, *Isoplexis canariensis*, *Mimulus glutinosus*, *Mitraria coccinea*, *Oxyanthus natalensis*, *Primula imperialis*, *Talauma Hodgsoni*, and *Vincetoxicum purpurascens*.

Palm House.

Aristolochia brasiliensis, *Odontadenia speciosa*, *Passiflora cornuta*, *Pavetta caffra*, and *Theophrasta Jussieni*.

Water Lily House.

Eranthemum hypocrateriforme and *Ipomoea Hardingii*.



THE GARLAND ROSE IN A BERKSHIRE GARDEN (PLANTED TWO YEARS AGO LAST MARCH).

Orchid Houses.

Aerides crassifolium, *A. odoratum*, *Bulbophyllum barbigerrum*, *Calanthe japonica*, *Catasetum planiceps*, *Cattleya Aelandiae*, *Cirrhopetalum robustum*, *Cymbidium rhodochilum*, *Cypripedium Curtisii*, *C. Ledouxæ*, *Dendrobium infundibulum*, *Diplocentrum congestum*, *Dista tripetaloides*, *Epidendrum elongatum*, *E. raniferum*, *Hemaria dawsoniana*, *Lælia digbyana*, *L. purpurata*, *Lycaeste Deppel*, *Maedevallia bella*, *M. macrura*, *M. muscosa*, *M. reichenbachiana*, *Mystacidium augustum*, *Oncidium candidum*, *O. exasperatum*, *O. luridum*, *Ornithocephalus grandiflorus*, *Polytrichya Zambesiae*, *Stanhopea saccata*, *Theodora gomezoides*, and *Thunia veitchiana*.

T Range.

Æchmea dealbata, *Eschynanthus lobbiana*, *Arisæma* in variety, *Goniocyptha eucomioides*, *Isoloma* in variety, *Pitcairnia undulata*, *Tillandsia tessellata*, and *Tradescantia crassifolia*.

Succulent House.

Cereus Macdonaldii, *Opuntia monacantha*, and *Senecio subscandens*.

Greenhouse.

Similar plants to those mentioned last time.

Rock Garden.

Allium narcoissiflorum, *Asperula suberosa*, *Bulbifera Hookeri*, *Calamintha grandiflora*, *Calceolaria polyrhiza*, *Campanula spicata*, *Dianthus neglectus*, *Erinus alpinus*, *E. glaberrimus*, *Hypericum polyphyllum*, *Linaria alpina*, *Meconopsis paniculata*, *Polygonum bistorta*, *Primula sikkimensis*, and *Wahlenbergia dalmatica*.

Herbaceous Borders.

Allium acuminatum, *A. albo-pilosum*, *A. urceolatum*, *Astragalus chinensis*, *A. ponticus*, *Gillenia trifoliata*, *Kniphofia kewensis*, *K. rufa*, *K. Tuckii*, *Lathyrus grandiflorus*, *Lychnis chalcedonica*, *L. Githago*, *Poterium officinale*, *Scabiosa caucasica*, *S. leucophylla*, and *S. longifolia*.

Owing to the heavy rains and lack of sun very few outdoor plants are in flower.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

PYRETHRUMS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Mr. J. Cornhill (see page 348 of THE GARDEN) has done well to direct attention at this time to these showy and beautiful flowers. It would appear, however, that the notes in question are the experience of one place, and it is not unnatural that the advice tendered does not agree with that for other localities. Indeed, in localities so widely apart as Hampton, Middlesex, Birmingham, Cheshire, and Tooting, to go no farther, and in all of which I have had experience of growing these things in large numbers, it does not quite fall in line. How and when Pyrethrums may be divided and replanted depends not altogether on the season but in a far greater degree on how the work is done, the class of soil to be dealt with in the replanting, and so forth. For example, there is no comparison—when it comes to replanting out of season—between the freshly-established pot plant of two months potted and the roughly, crudely divided clump of the moment. The pot plant may possess two or even three crowns, and the sectional part of a large clump thirty or ten times the number. Yet I would stake my reputation as a hardy plantman that the pot plant of my growth, if to go in a light, well-drained soil, may be planted within six weeks of Christmas, and, by its continued growth of root and leaf all the winter long, be the larger of the two examples named, capable of giving the best results at flowering time the following June. The reason is obvious. The pot-established plant just noted may have been taken in hand in the early part of September, pulled into quite small examples, potted and framed, and

therefore quickly re-established. In November such plants are not only teeming with young root fibres, but these fibres in light soils continue, and the top growth also in open weather all the winter through. I have planted freshly-established pot plants from both the spring and autumn division by the thousand over many years, with perhaps hardly the loss of a single plant per thousand. On the other hand, I have seen the work of others who, believing their stock of plants large enough to permit of dealing with in a more rough and ready way, divide the clumps with a spade or other tool, and after replanting and watering for some time lose more than two-thirds of the plants so treated.

Some years ago a well-known man in the nursery trade called upon me in this district. Noting that I had a large lot of Pyrethrums, he enquired the price, and said he would take 100 plants. I told him my rule was to first select my own and give the trade buyers their pick after, but as I had so many—and I had some thousands at the time—I told him he was welcome to select his own. He did so and departed, as he had good reason to, well satisfied. This was in September or October. Some weeks later—in fact, from the middle to end of November—I planted about an acre from this same stock, reserving still a large supply of good plants for orders. At planting time these young pot plants were teeming with fresh-growing roots, and in my light soil I had not the least thought of any loss. To the best of my knowledge and recollection there was none, or next to none. This large area was full of growth all the winter, so to speak. Judge of my surprise, therefore, when in early spring the gentleman referred to above called on me to say that "all those Pyrethrums died that I had of you last season." "Indeed," I said, "what did you do to them?" "Oh! I took every care of them," he remarked, "and framed them for the winter." "Which," I said, "is just what I would not have done," inviting him at the same time to come and see my beds planted in the open, where you see them weeks after you had had your pick. He could not understand it, he subsequently remarked, but I assisted him in this matter by suggesting that his frame and the many slugs it encouraged were the chief causes of his loss. Hence, I repeat, there is a difference in the ways and means, and the plants would have been infinitely safer plunged in ashes in the open. Such perfectly hardy things require no frame coddling except as a means of propagation. When large plants are pulled to pieces the frame is a valuable aid. But it must always be unheated.

Heated frames are frequently the cause of many failings. I am certain that no method is more simple than the pot one, not merely for increase, but for ensuring success also. Many require clumps from the open ground, and such may be a success when properly planted in the right season. In early spring such clumps plant quite well. Again, in early September, the June-flowered examples may be divided and replanted with a fair measure of success in light soils if well cared for. In cold and wet soils it is by no means wise to delay the planting; indeed, I know instances where the plants entirely disappear in winter on heavy soils over the liss formation. In all such spring planting freshly-established pot plants are the best. As I have seen the Pyrethrum buried fully 6 inches below the level of the crowns in high-class gardens, a word of warning may be necessary to avoid repetition. The crown stock should be on a level with the surface in every case. As Mr. Cornhill rightly observes, these plants delight in moisture during growth and flowering, and, in short, in all seasons of drought.

As to varieties Carl Vogt and Aphrodite, among white kinds, are great advances over Mont Blanc and its allies of nearly thirty years ago. The two first-named are very pure and large. Melton is very fine, but Imbricatum is no longer worth a place among doubles. Alfred is a fine crimson and so is Meteor. Of other good doubles let me name Florentine, bluish; Celia, pink; Ormonde, rosy red; Pericles, gold, with creamy gold petals, a most fascinating kind; Wega, buff, very fine; Empress Queen, bluish; Duchess of Teck, pink;

and Cleopatra, yellow and white. These have all been for years in cultivation, and represent the finest types of the double Pyrethrum in cultivation to-day. The list of varieties is a long one, and this is a greater reason for eliminating those of secondary value.

Hampton Hill.

E. JENKINS.

HOUSE GROWN FRUIT.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—On reading the paragraph on "House Grown Fruit," on page 410 of THE GARDEN, one is led to ask, is Mr. A. Dean quoting Mr. Hudson correctly when he makes him say "Cherries will not do in the same house as other stone fruits, Peaches, Nectarines, and Plums?" That it is a great convenience to have separate houses for each kind of fruit every gardener will admit, but ripe Cherries may be had by the end of May or earlier in Orchard houses provided with one row of hot-water pipes round them to warm or dry the air of the house as circumstances may require during the early period of growth. The cool buoyant atmosphere required by the Cherry will in no way interfere with the successful fruiting of Peaches, Nectarines, or Plums; it will only retard their ripening. To the amateur who seeks change and recreation in his garden what can there be more enjoyable than a house where the Peach, Nectarine, Plum, and Cherry can grow together, and give a feast to the eye during the period of blooming, and to the palate during the season of ripe fruit. I have a pleasing recollection of such a house, a large one I admit, where the fruits named, and also the Pear and the Apricot, found a place and gave a fair return for the labour expended. There *Maréchal Niel* and *Devoniensis* Roses covered the pillars and were trained near the roof, and *Rhododendrons* in pots, *Lilacs*, and other flowering shrubs added variety.

GARDENER.

THE DODDER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your note on this curious parasite reminds me of one which was introduced some years ago as an ornamental plant, and called the Golden Dodder. I am not sure if it is *Cuscuta reflexa*, for which Mr. William Bull received a first-class certificate from the Royal Horticultural Society in November, 1865, but it was a little after that date that I grew it. It was sown with Sweet Basil (*Ocimum basilicum*), and the tiny thread-like plants soon attached themselves to the Basil, and after it once got a start grew rapidly, completely covering the Basil with long, slender golden-yellow thread-like shoots, branching out in all directions; although an interesting and rather pretty curiosity, I do not think it became generally known. A few years ago I found one of the Dodders (I think it was *Cuscuta epithymum*) very troublesome among Heaths; it came with the peat used for potting, and among bushy plants of *Erica gracilis* and *E. hyemalis* proved very destructive. It required a good deal of patience to properly rid the plants of it, for if the smallest piece was left it would soon spread and cripple, if not entirely kill, the plant.

A. HEMSLEY.

THE CHISWICK FRUIT AND VEGETABLE SHOW.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It has been said by several gardeners that it was exceedingly fortunate that the council of the Royal Horticultural Society had arranged to hold an exhibition of vegetables at Chiswick in September next in conjunction with the annual fruit show, as fruit being very scarce generally this year that element in the exhibition must of necessity be limited. It is greatly to be hoped that if fruit be scarce generally, yet all the same some growers here and there may be fortunate enough to have fair crops, and will exhibit their produce, whilst, however, there is ample time for vegetables to develop all their customary points of excellence and thus make up a very fine display. The season

so far has hardly been helpful to that end; growth is very slow, and hence very late. The best recent crop has been Cabbage, which generally has been good. Peas barely fill at all, because soil is so cold and there is such a deficiency of sunshine. Potatoes grow slowly, and in many breadths the lower leaves have browned, evidently having been chilled. These, it is feared, may early fall a prey to the disease, which invariably begins its destructive operations close to the ground. Moulding up has been greatly hindered by such persistent rainfall, and now many breadths will have to be left unmoulded, as the operation is hardly practicable after the tops have become of appreciable height. Where breadths are planted on stiff retentive soil any surface working has been impossible. Weeds, too, have given much trouble, and as the hoe could not be used with advantage, pulling has had to be resorted to. Tender plants, such as Kidney Beans, Tomatoes, and Vegetable Marrows, seem scarcely to move. With a return of warmth no doubt they will directly, but these cold checks do materially retard crop production. The season so far has been a very trying one for gardeners, who are so commonly expected to supply everything asked for, irrespective of seasons. A. D.

THOUGHTS ON GARDEN ROSES.

WHAT IS A "GARDEN" ROSE?

I MUST confess ignorance as to the exact meaning of the term "garden" Rose, and no doubt many rosarians are in the same difficulty. If we refer to the catalogue of the National Rose Society we find no definition of the term, but simply a hard-and-fast line to separate the exhibition from the garden Roses. This division at first sight appears an absolute necessity, but, at the same time, it must be borne in mind that it is open to no small amount of criticism. That such Roses as La France, Marie Van Houtte, Hon. Edith Gifford, Maman Cochet, and its white variety should be excluded from an exhibit of garden Roses, simply because they are classed as exhibition varieties, is unfortunate, because it is apt to mislead those who are more or less unacquainted with Roses generally. Many visit Rose shows in order to find out for themselves what varieties are likely to prove most suitable and attractive for ordinary garden use. They are sure to have been warned beforehand not to plant exhibition Roses, and the result is that they make their choice from amongst the exhibits of garden Roses, and by so doing often omit some of the most valuable varieties from their selection. The question will be asked: But how can this be avoided? And it is by no means easy to give a reply. I can only throw out as a suggestion that Roses of proved garden value which are now classed as exhibition varieties should be allowed to be exhibited in either section.

If we turn to the official catalogue of the National Rose Society we find a number of varieties which are included and described in

the lists of exhibition Roses recommended as good garden Roses. To give but one instance, we find that Maman Cochet is described as "a grand exhibition and garden Rose." At the same time we find that to exhibit it as a garden Rose would mean instant disqualification. It can scarcely be wondered that the outside public are both puzzled and misled by the use of such ambiguous expressions. What is meant by the term "garden" Rose? would certainly be a knotty question for a horticultural examination paper, and might perhaps be productive of a useful definition. Perhaps, however, some of my brother rosarians may have some suggestions to make on the subject;

their wants as regards protection are attended to. But what I am most anxious to point out is that raisers are not striving to produce hardy varieties, simply because the public has now ceased to demand them. This statement is certain to be called in question, but if we refer to the catalogues of any of the leading growers we find many good Roses of proved hardiness dropping out in favour of varieties most of which have not yet experienced a severe winter. Even when new varieties (such as single Teas, for example) are being distributed, in many cases great stress is laid on the fact that they are perpetual flowering, and no mention as to their hardiness is made.

Provided that they are tolerably fair growers and floriferous and fragrant it would appear to suffice. It is quite time, however, to sound a note of warning. One of our highest authorities gives it as his opinion that a marked improvement has taken place in Tea Roses, partly owing to "their greater hardiness and vigour." This is all very well as far as it goes, but let us for the sake of comparison take the following twelve dwarf-growing varieties, all introduced prior to 1894.

	Date of Introduction.
Marie Van Houtte ...	1871
Hon. Edith Gifford ...	1882
Marie d'Orleans ...	1884
Maman Cochet ...	1893
G. Nabonnand ...	1889
Anna Olivier ...	1872
Francisca Kruger ...	1879
Mme. Lambert ...	1877
Mme. Hoste ...	1887
Souvenir d'un Ami ...	1846
Souvenir de S. A. Prince ...	1889
Homère ...	1859

These are all capital free-growing Roses for the garden, of proved hardiness (for Teas), possessing good constitutions; in fact, just the varieties I should plant in quantity in cold localities. To bring the list more up to date I should include White Maman Cochet in place of Homère. Of course, I am fully aware that it has taken a great many years to produce the twelve grand varieties named in the above list, but, on the other hand, we must bear in mind that where one Tea Rose was grown ten years ago, probably twenty-five at least are now used. This demand has greatly stimulated raisers in their efforts to produce good garden Teas, and many lovely varieties have been put into commerce. But how

many of these new varieties are as hardy as those to which I have referred? Not many, I am afraid, will emerge from the test of a severe winter as successfully as these older ones. I have formed this opinion after testing many of them myself in a cold midland valley only 150 feet above the level of the sea, where such shrubs as Darwin's Berberis and Laurustinus do not by any means prove hardy. And this I find is the general experience of rosarians in this part of the country.

Now let us refer again to the National Rose Society's catalogue, and look through the list of garden Teas. Here are a few of the varie-



TEA ROSE PRINCESS MARIE OF ORLEANS (REDUCED).

at any rate, the matter appears worthy of further discussion. I shall always maintain that the most important point to consider in a garden Rose is

HARDINESS.

Owing probably to the fact that we have had no severe winters of late years, this point is being almost entirely overlooked. We are most careful to study the growth, habit, floriferousness, and colour of a variety, but there we stop. Numerous writers, among them many of our highest authorities, have told us over and over again that Tea Roses are hardy; and so many of them are in an ordinary winter, if

ties which we find recommended: Beryl, Ma Capucine, Mme. René Gerard, Meta, Souvenir de J. B. Guillot, and Sunset. An exquisite range of colouring is here represented, but how many of these are tender and of poor constitution! Are these really the varieties most suited to the climate of the majority of gardens, or are we on the wrong tack? In the Hybrid Tea section we find a better state of things prevailing, although even with these the importance of hardiness ought to be more insisted upon. Some of the older sorts, such as La France, Grace Darling, Gustave Regis, Caroline Testout, and Viscountess Folkestone, are very hardy, and just the ones we want more of. Perhaps the sooner we have a hard winter the better for the Rose. People will then think more of hardiness than is the case at present, and when they come to replant their Roses after the frost there will be such an enquiry for the hardier varieties, that raisers will be forced to concentrate their attention more on this point than they appear to have done of late.

In "The English Flower Garden" a list is given of the Tea-scented Roses that can be trusted in any season. One of these is *Princesse Marie d'Orleans*, a noble Rose sent out by MM. P. and C. Nabonnand in 1884. It is quite the hardiest dwarf Tea Rose I have ever grown, and one sees with regret that it has now dropped out of the majority of catalogues. In directing the attention of the many readers of *THE GARDEN* to this lovely Rose I feel that I am in good company, because its merits have long been recognised by Mr. W. Robinson and Mr. William Paul, the latter describing it as "a fine Tea Rose, hardy and free." The cool summer of last year suited it to perfection, and its shapely flowers were finer than I have ever previously known them. Their colour is bright rose, shaded with pale silvery rose, and at times flushed with a deeper shade. In cool weather the base of the petals is white. The habit of growth is very strong and erect, the pale green wood being set with large bright red thorns. The photograph from which the illustration was prepared represents a bloom cut in this garden during the middle of July after a spell of particularly rough and gloomy weather. If raisers will only take a Rose such as this as a type of what an English Tea Rose ought to be, we should not find as many gaps in our Rose beds.

Worcestershire. ARTHUR R. GOODWIN.



A NEW CABBAGE (WYTHES' EARLY GEM).

The Cabbage may be grouped into three distinct classes—early, midseason, and late, and doubtless the least important is the midseason, as at that time so many other good vegetables are available. The Cabbage is an important factor to the cottager and those who require large quantities of vegetables, and the summer Cabbage has other advantages owing to its rapid growth; it is very sweet and succulent if given good culture. We know that old plants left to chance when large or coarse are offensive; these our note does not apply to, as Cabbages can be grown so quickly that there is no need to have inferior heads, no matter what the season or variety. Our remarks on this occasion more concern the newer introductions, and our illustration is of a new variety (Wythes' Early Gem). Messrs. Cutbush, of Highgate, are sending it out next season. It is remarkable for its compact growth, its earliness (it was ready in March this year), and, what is most important, its excellent quality. It is valuable on account of its size and hardiness. These small-growing Cabbages have very little stem exposed above the soil, compact or folding leaves, and are often the hardest of all. The raiser of this new variety, who takes much interest in vegetable culture, also raised an autumn or winter Cabbage, the *St. Martin*. This was the result of crossing the *Christmas Drumhead* with the *Rosette Colewort*, with the intention of getting a hardier *Colewort* with less splitting in severe weather.

Few Cabbages since they were introduced have found more favour than *Ellam's Dwarf Early Spring*, and rightly so, for it was a great gain in every way to the private grower who thought more of quality than quantity, but now we find even this excellent variety varies, and we fear there are false stocks, as only recently a large grower told us it was impossible to keep any variety true, no matter how good it was, if the seeding was not done with the greatest care. The Cabbages of more recent date have been quite as valuable. Take such kinds as

Sutton's April.—This is one of the most valuable spring vegetables that can be grown. This variety sown for the spring supply—that is, sown in July or August—is most valuable. It has not been grown many years, but its earliness and size for a private garden will have proved its worth. Another equally good Cabbage is

Flower of Spring, larger, and perhaps a trifle

later, but invaluable in every way. The same remarks apply to

Sutton's Earliest.—This is new and a close rival to *Sutton's April*. It is valuable for sowing under glass in January to follow the autumn-sown. In the north few gardens are without

Mein's No. 1 for early supplies. It is excellent, and, though later than the varieties referred to above, the locality must be considered. A Cabbage recently introduced takes some time to find its level, but it should be grown by the side of other and given a good trial, a remark which applies to all the Brassicas and other vegetables.

We have referred to three distinct seasons, and this should be observed, as by some a spring Cabbage is supposed to be available for summer. This is not so. The autumn-sown Cabbages are grown mostly for their hardiness, and in summer these conditions are reversed. There are plenty of good summer varieties, such as *Veitch's Matchless* and *Main Crop*, *Sutton's Favourite* and *Tender and True*, and *Carter's Heartwell* and *Model*, all of recent introduction, or nearly so, and remarkable for their quality at a season when the Cabbage is not at its best.

In autumn there is a Cabbage of recent introduction that is not so well known as its merits deserve; that is

Veitch's Beaconsfield, a variety of dwarf habit, conical shape, and a valuable variety for early autumn supplies. Last season it was excellent at the date named. Many would prefer to sow it in the early part of the year, say February or March, for use at the season named, though it is also recommended for autumn sowing. It was grown at Chiswick as a spring Cabbage in 1898, whereas the more recently introduced *St. Martin* was given an award in November, 1899, at Chiswick.

Winter Cabbages are often overlooked, and this is not surprising, as the bulk of the hardy Brassicas are in season at that date. On the other hand, we would put in a plea for this useful vegetable at that season, as in severe weather they suffer less than Brussels Sprouts, Borecoles, or Broccoli. Such varieties as *Christmas Drumhead*, *St. John's Day*, and the newer *St. Martin's* are distinct winter Cabbages, and by growing them with a breadth of Coleworts a good supply is available all the year round. We are aware in small gardens that there is some difficulty in securing the proper planting material, but it can be overcome by sowing a pint

THE KITCHEN GARDEN.

SOME CABBAGES OF RECENT INTRODUCTION.

DURING the past few years the Cabbage has been much improved. These remarks apply also to such Brassicas as Kales, Cauliflowers, Broccolis, and Brussels Sprouts. It must be remembered that mere size is not considered an advantage by those who require quality. This year the Royal Horticultural Society are giving more attention to vegetables than usual by holding an exhibition in their gardens at Chiswick, and, from what we can see of the arrangements made, there are no classes for recently-introduced vegetables. There may be various opinions about this, but we think an excellent opportunity has been lost. Whilst on this subject we are sure that all vegetable growers—those who take a great interest in this work—most heartily thank those who have worked hard to bring this exhibition to a successful issue (notably Mr. Alex. Dean), and we trust it may be the forerunner of many others.

of seed at the right seasons. Of course, July and early in August are important as to next year's crops, but there is a great advantage with these recent introductions, as, should adverse weather delay sowing or other causes prevent a good plant being obtained, by sowing under glass in January good results are secured only a little later than from the autumn-sown plants. By getting a small, close growth there is a great gain in time. Quality also must be studied, so that on the whole we think there has been a great gain to the amateur and private grower, and the plants are more suitable for gardens of limited size.

GARDENING OF THE WEEK.

FRUIT GARDEN.

VINES.

WHEN all the Grapes have been cut from the early Vines examine the inside borders, add a little fresh mulching if they have suffered from the weight of the crop, and keep the roots moderately supplied with diluted liquid, but guard against feeding to an excess that will force a vigorous growth and so exhaust the Vines after the wood is ripe. Keep the strongest laterals pinched to balance the flow of sap, and preserve all the old foliage by good syringing every evening, or as often as the state of the weather may render atmospheric moisture necessary.

SUCCESSION HOUSES

in which the Grapes are ripening may have more air by night and by day, with just sufficient fire-heat to keep the minimum temperature at 60°, and, when the berries have attained their full size, the afternoon closing may be discontinued, particularly where the colouring process is not going on satisfactorily. If the house contains Madresfield Court Grapes see that the borders are moist, but not wet, mulch well with some loose non-conducting material, and allow all the laterals and leaders to grow until after the Grapes are cut.

LATE HOUSES.

Muscats, Lady Downe's, and other sorts which frequently scald during stoning must be closely watched until they are considered safe. A rapid change in the atmosphere may bring on the usual fermentation of the pulp, in which case it will be well to continue a high night temperature, with diminished atmospheric moisture to prevent the berries getting cold, and to maintain a steady heat of from 76° to 80° through the day by keeping the pipes warm and by increasing or decreasing the ventilation.

CUCUMBERS.

Where the bottom heat is obtained from hot-water pipes and fermenting material combined the latter should be renovated with fresh leaves when the plunging thermometer denotes a fall to 80°, and the night temperature of the house cannot be maintained without having recourse to sharp firing. This is at all times injurious to a moisture-loving plant like the Cucumber, but never more so than when the sun strikes suddenly upon the roofs before the pipes have become cool. If the pots or beds are well drained it is hardly possible to over-water or to give the foliage too much atmospheric moisture, provided the liquid for the one and the pure water for the other is applied at a few degrees above the mean temperature of the house. As the plants will now be producing fruit at every joint over-cropping must be carefully avoided—at least, if they are to be kept on bearing throughout the summer; but where they are to be shortly removed for Melons fruit may be taken before they are destroyed. Where manure is plentiful, and frames which have been used for forced vegetables are now at liberty, a few lights under good management will give an abundant supply of excellent fruit until the early autumn-sown plants come into bearing. Instead of pulling down and rebuilding the beds, dig out a trench 2 feet wide the whole length of the frame, a little nearer to

the front than to the back, fill in with a few barrowloads of the best fermenting material at hand, and plant on small mounds of loam. A new lining is placed to the front, cover early every night, and adopt the market grower's system of shutting up about 3 p.m. with sun-heat and plenty of moisture. If straight fruit is required glasses may be used.

Madresfield Court Gardens.

W. CRUMP.

THE FLOWER GARDEN.

THE comparative rest that many plants are now enjoying after their spring activity will, towards the end of the month, give place to renewed growth. When plants cease for a time to put forth fresh buds we say they are at rest, when in fact they are busy making preparation for a fresh display. A good shower of rain or a good soaking of water will invariably cause the sap in plants to rise. But there is nothing like a shower of rain; water as freely as you will the plants will only moderately respond. Delphiniums and plants of this character should be carefully gone over and all the old flower stems taken out, this will encourage them to make fresh growth and give a good display of bloom throughout the autumn.

HERBACEOUS PÆONIES.

These will now have done flowering, and in gardens where beds can be devoted to their culture tall-growing annuals should be ready for planting between the crowns; they will make a fine display towards the end of the summer, and to do away with the untidy appearance we so often see when the foliage of the Pæonies is dying off.

ACANTHUS LATIFOLIUS.

We often hear it said of some plants they make a grand display for a time, but when they are most needed neither flowers nor leaves are to be depended upon. Here is a plant that anybody can grow, and which is in all respects excellent. The leaves are bold and noble in outline, and the plant has a tendency, rare in some things with otherwise fine qualities, to retain its leaves till the end of the season without losing freshness. In fact the only thing we have to decide about this subject is, what is the best place for it. It is one of those plants that will not disgrace any position, and will prove equally at home in the centre of a mixed bed or border of a choice shrubbery. It will do well

in the flower garden, and has not that seedy look which many things have at the end of the summer. Give it a good deep soil to grow in, and do not begrudge it attention when first planted, for, unlike many other plants, it will not trouble you again for a long time.

GYNERIUM ARGENTEUM.

The Pampas Grass deserves quite as much attention as any plant in cultivation. What is there growing in the garden or in the wild more noble, distinct, and beautiful than the great silvery plumes of this plant waving in the autumnal gales, the burial plumes as it were of our summer too early dead. The soils of very many gardens are insufficient to give it the highest degree of strength and vigour, and no plant better repays for a thorough preparation, which ought to be the more freely given when it is considered that the one preparation suffices for many years. This plant should have a somewhat sheltered position in the flower garden, so as to prevent as much as possible that destruction of the foliage which occurs wherever the plant is much exposed to the breeze. In dry seasons this plant should have abundance of water and a good mulching of rotten manure.

T. B. FIELD.

Ashwellthorpe Hall Gardens, Norwich.

INDOOR GARDEN.

MAISON CARNATIONS.

As the early-flowering plants become denuded of their flowers carefully remove old and bad foliage, and cut out the old flower stems close to the wood. Place the plants thinly in a cool airy house where plenty of air can circulate freely amongst them to harden the young growth before layering. Unless the plants undergo this preparation the young wood is generally too brittle, and in the process of layering a good number of the strongest and best layers are spoiled. This preparatory treatment is especially necessary where the plants during their flowering have been arranged closely together for effect in the show house or conservatory. A week or ten days under the treatment first referred to is generally sufficiently long to bring the young shoots into suitable condition for layering. A cold frame standing on a firm surface of ashes where the water can pass freely away is suitable for this purpose. This may be filled to a depth of 10 inches



CABBAGE WYTHES' EARLY GEM (SHOWING THE HEART).

or a foot with rough siftings of soil or other material in which the balls of the old plants are to be plunged, proceeding one row at a time cross-ways of the frame. Surface this rough soil to a depth of 3 inches with prepared light fine sandy soil, which should be in a moderately moist condition to enable it to be made quite firm. As the layers are inserted peg them with wire pegs and give them a light sprinkling with water from a fine rosed water-pot. Ventilate the frame with a small piece of lath under the light at the back or upper end, and until the layers are rooted shade them from the sun with tiffany. Unless the weather is very dull sprinkle them lightly twice each day to counteract the loss by evaporation.

BEGONIAS FOR WINTER FLOWERING.

Of these the hybrid class introduced by Messrs. Veitch is invaluable. The best treatment for this section is to keep them growing steadily during early summer, and to repot them at this season of the year in loam, leaf-soil, and sand. Place them in a somewhat close pit and give a moderate amount of moisture with shade during bright weather; if these plants are allowed to become dry and quite dormant after the flowering season they do not start again very freely until late in the year.

CINERARIAS.

Make a final sowing if not already done. The young plants from the previous sowing should be pricked off 2 inches apart into shallow pans or boxes and placed in a cool shady place in a frame or pit. Give them a light dusting with Tobacco powder to keep aphids in check.

CALECEOLARIAS.

One sowing of these will be sufficient, and should be made at once in well drained shallow pans and filled with rough material or the sifting of leaf-soil to within 1 inch of the rim. Cover with about three-quarters of an inch of fine soil composed of loam, leaf-soil, and sand pressed firmly over the surface of the pans, and if watered half an hour before the seeds are sown it will be in good condition to receive them. As these are very fine they should be only covered by placing a sheet of glass to fit closely over each seed pan. A good position in which to germinate the seeds is a small temporary frame placed at the base of a north wall where it can be kept in a cool equable condition. When the weather is dry or windy cover the frame with tiffany until the seeds germinate, when a little subdued light is helpful.

Wendover.

J. JAKES.

THE KITCHEN GARDEN.

ONIONS.

THE main crop of the spring-sown Onions having been slightly thinned will now be growing rapidly, and but little attention will be required beyond hand weeding in the rows and running the hoe through the alleys on fine days. The plants raised under glass and afterwards planted out will need similar treatment, and as these require to be worked among more frequently the hoe must be plied often in order to maintain the surface soil in a pulverised condition.

If a mulch has been laid on there will be less need for hoeing, the necessary weeding being performed by hand. The advantages of a mulch of a decayed Mushroom bed for this crop cannot be over-estimated. Great care must be taken not to damage the points of the leaves when working among them; they are extremely brittle. Liquid manure from the farmyard may be given frequently, and when possible this should be applied before the soil has become too dry or it will run away too quickly. An occasional change in the way of an approved vegetable manure may be given with advantage. This should be placed round each bulb with the hand, taking care not to place it against the bulb. A fortnightly slight dusting of soot to all Onions is highly beneficial, for, apart from the manurial properties it contains, it will act as a deterrent to the dreaded Onion maggot.

CELERY.

Complete the planting in trenches as fast as the plants become large enough. To ensure good

heads both the main crop and the late plants should now be put out, and kept well supplied with water. The early batches of plants will be growing freely, and some assistance may be given by manurial waterings to maintain healthy growth. This crop is greatly benefited by frequent dustings of soot, and if this is followed up closely from the time the plants become well established until earthing up is done it will keep the Celery fly in check. The affected leaves should be picked off and burned.

SPINACH.

It is too early to sow the varieties usually grown for winter, but a good breadth of the summer



LILIAM KELLOGGII.

varieties may be sown provided a cool, moist position is at command. It is often difficult to obtain Spinach in the late summer, especially in gardens having a light porous soil. The New Zealand Spinach may be grown as a substitute if the ordinary varieties do not thrive. This species does not suffer so severely from drought as the others.

SEAKALE.

Keep the Dutch hoe working among the plants that are being grown for lifting to force in winter. Go over the plants and cut out any weakly growths that may have been overlooked. Where two strong growths occur on one plant they may be retained, but if one be weak then remove it.

Some stimulant should now be given; two slight dressings of salt may be applied at intervals of a month, and a fortnight after the first application the plants may be dressed with decomposed seaweed or farmyard manure. Guano is also very beneficial.

Stoneleigh Abbey Gardens.

H. T. MARTIN.

NEW AND RARE PLANTS.

LILIES AT HOLLAND HOUSE.

THAT one Lily received a first-class certificate, and another an award of merit, at the recent exhibition at Holland House shows that the genus was well represented. The first to mention is that upon which a first-class certificate was bestowed, viz.,

LILIAM AURATUM PLATYPHYLLUM (SHIRLEY VAR.).

It is certainly a very fine form of the broad-leaved variety of *L. auratum*, the plants shown being about 6 feet high, while the flowers are very large, of a particularly waxlike substance, and the petals are white, save for a golden band down the centre of each. There is an entire absence of the spotting so pronounced in most forms of *L. auratum*. It appears to be a particularly well grown form of a Lily sent to this country from Japan in limited numbers under the name of *Lilium auratum platyphyllum virginale*. The form exhibited is said to have been planted as a single bulb many years ago at Shirley, and to have increased since then in a wonderful way. It certainly formed a feature in Messrs. Wallace's notable group.

LILIAM KELLOGGII.

This Lily, shown by Messrs. Barr, was perhaps the most interesting species there, and an award of merit was given it. In general appearance it suggests a hybrid between *L. pardalinum* and *L. rubescens* or *L. washingtonianum*, probably the first named of the two. Mr. Carl Purdy, who named this Lily, says that the bulb is small, like *L. columbianum*, while the leaves are in regular whorls much as in *L. rubescens*. The flower, however, is very intermediate in character, approaching more nearly to *L. pardalinum* in shape, while the colour is a warm rosy purple on the upper half of the petals, with the centre lighter and freely dotted with rich purple. A good illustration of this Lily and description by Mr. Purdy were given in THE GARDEN for May 11, 1901, the former of which we reproduce. It is a native of the Redwood region in Humboldt County, California, and like many other species from the same district will probably prove difficult to grow.

THE FRUIT GARDEN.

TRAFALGAR STRAWBERRY.

ALTHOUGH the flavour of an edible fruit should be its most important attribute, appearance must not be overlooked. In the case of Strawberries, size often carries with it a certain weight, while variety is sometimes appreciated and sought after. With the latter point in view we have this season given the Trafalgar Strawberry a trial for late forcing, and, not having noticed any remarks concerning its use for this purpose, our experience may not be altogether uninteresting. This, perhaps, may be best given by comparing it with that of Royal Sovereign, a variety that has deservedly become generally popular, and which I venture to say has no equal for forcing when all its qualities are taken into account, though in the

case of the Laxton this judgment may be premature, as a trial in a small way, which is all that we have given it, cannot be considered reliable. I hope this may prove to be true, for valuable as Royal Sovereign, especially for forcing, undoubtedly is, a still better would be welcomed. Trafalgar when grown and ripened in pots under identical conditions with those afforded Royal Sovereign carries more foliage than the latter, and pushes more flower spikes; in fact, its free bearing character amounts to a fault, which we rectify by freely pinching out the weakest spikes at an early stage of their development. The fruit is quite equal to Royal Sovereign in point of size, and in season of ripening it closely follows it, thus affording a good succession; but both in colour and flavour, though they are good, it cannot be said to equal Royal Sovereign. Its flesh is firm, and the fruit travels well. The plant is robust, and apparently capable of resisting attacks of mildew and red spider, which are attributes of much value. For outdoor culture Trafalgar is a prolific bearer, and yields very large fruits upon maiden plants. This is the only way we have grown it. In fact all our dessert fruit, with the exception of some produced by planting out forced plants, is grown in that way.

THE PEAR MIDGE.

THIS insect has of late years become very destructive in some districts, and nowhere more so than in the western counties, and those who have battled with it by doing their utmost by hand-picking the affected fruits and burning them have apparently derived little benefit therefrom, for the following season the attacks have proved to be as virulent as ever. In fact, the eradication of the insect in districts like this one, with very large Pear trees (where it is perfectly impracticable to hand-pick the midge-infested fruits), has become a perfectly hopeless task. It will be interesting, now that the Pear crop has been destroyed to a very great extent by the severe April frosts, to observe next season what effect it will have upon this insect. It is reasonable to suppose that its attacks will, to say the least, be diminished in a marked degree, and similar remarks apply to the codlin moth and some other pests. If this proves to be the case the destructive results of the elements, which many of us have serious reasons to bewail, will not be without good effect. Perhaps after all it is one of Nature's modes of remedying her own evils.

THOS. COOMBER.

The Hendre Gardens, Monmouth.

RENOVATING OLD VINES.

UNLESS root-pruning has been systematically practised the roots of Vines that have been planted some years will escape from the border they were meant to occupy. The Vine is naturally a deep-rooting plant, and unless in some way checked is sure, sooner or later, to thrust its roots down into the subsoil, where they are removed from the influence of warmth and air. Roots that bury themselves to a depth of 6 feet can never be so active as those that remain within a foot or two of the surface. As a fact, they cease then to make fibrous roots to any extent, simply travelling on without ramifying, and sooner or later coming into the wet cold subsoil. In the case of Vines that have been planted some twenty years it frequently happens that no traces of fibrous roots can be found within measurable distance of the surface. Some years ago I had some Hamburgs that had been over twenty years in place. I had to go down 2½ feet before I found any trace of roots, and the smallest of them were as large as a man's finger. Vines in this condition cannot bear good crops. It is impossible to get large bunches or well-finished berries from them, and in a damp cool summer they are sure to shank badly. There are, of course, exceptions to the rule; some old Vines, such as that at Hampton Court for instance, continue in a healthy, fruit-bearing condition, and their roots are far away from the surface. This can only happen, however, where the soil is exceptionally favourable and the drainage very free, and where there is a great depth of soil on a

sandy or gravelly bottom. The greater portion of vineries are, however, in low-lying situations, where there are not more than 3 feet or 4 feet of soil above the clay perhaps, or that can be relied on not to get water-logged when the Vines are at rest. Concreting the bottom to keep the roots from getting down was much practised some years ago, but I am rather doubtful as to whether the results were always good. The roots, of course, got down on the concrete, and in the course of time it was found that the soil became sour, the consequence being that the points of the roots decayed. As a fact, it does not take much to kill the younger roots of a Vine at rest; they are very sensitive to excess of moisture from the time active growth ceases. One of the best market growers I am acquainted with, and who has gained many prizes at our large exhibitions, makes a practice of annually going over his Colmans, Hamburgs, and Alicante, and stopping the roots in their downward progress. If this is done at an early stage in the life of the Vine the formation of fibrous roots will be encouraged near the surface, and the Vines later on will not come into the condition which necessitates drastic measures to restore them to health and vigour. Undoubtedly the best way is to lift the roots and replace them in fresh compost. It is surprising what may be done in this way in the course of a year or two. Some Vines in a private garden had been planted about forty years, and came into such a weak condition that they could scarcely produce any bunches, and were every season attacked by mildew. The roots had gone down so deep that they were difficult to find, scarcely any fibres being discovered. After the first year these Vines improved rapidly, and now bear good crops, mildew being little in evidence. Where Vines are so old and get into this condition, it is, I think, better to root them out and start with young ones, giving as much change of soil as possible; but on the part of many there is a natural reluctance to do away with Vines that in their time have borne good crops. As I have proved, it is possible to restore old Vines to a fair degree of vigour without lifting the whole of the roots. I have some Hamburgs on the back wall of a lean-to; they were planted about thirty years ago, and the greater portion of the roots have made their way across the path into a front border used for Tomatoes and Strawberries. It would be impossible to lift the roots without disturbing the wall that encloses the border, so I thought I would try another plan. I took the soil away from the old roots as far as I could get at them, both above and below, notched them here and there, and packed them round with peat. The old soil, to about a foot in depth, was replaced with nice free compost. In the course of the season roots were freely produced, the growth was much stronger, and the wood ripened well. In succeeding years there was much improvement in the yield and quality of the produce. I strongly recommend this method to those who may not be willing to lift the whole of the roots.

J. CORNHILL.

SOCIETIES.

HOLLAND HOUSE FLOWER SHOW.

HARDY TREES AND SHRUBS.

THIS aspect of the garden was well represented, several excellent groups being tastefully arranged, and contributing largely to the excellence of the general display.

Messrs. William Outbush and Son, Highgate and Barnet, made another of their unique exhibits of clipped trees, their group on this occasion containing some 200 specimens in green-painted tubs. Box and Yew were the chief shrubs used, though some splendid pyramids of Bay and Euonymus were also in evidence. As showing the comprehensive character of the shapes into which the shrubs were clipped it may be mentioned that swans and peacocks, tables, chairs, boats, dogs, jugs, churches, and birds on pyramids in various forms made a display for which this firm is now so famous.

From Mr. John Russell, Richmond, Surrey, came a superb group of tree Ivies, embracing no less than forty varieties, and representing some 500 plants of dwarf and standard forms. This group was a very novel one, and was also tastefully set up in crescent form. Conspicuous plants were *Hedera arborea flavescens*, *H. arborea canariensis aurea*, *H. palmata aurea*, *H. arborea Gold Cloud*, *H. arborea Glymii*, *H. digitata aurea*, *H. arborea Sheen Silver*, *H. Silver Queen*, and *H. elegantissima*. Trailing growths of other Ivies were worked in along the front and made a pleasing finish.

Messrs. John Waterer and Sons, Limited, Bagshot, had a handsome group of specimen shrubs in pots and tubs, also a pretty selection of *Acer*, *Rhododendrons*, and a grand lot of *Kalmias*, which made a very interesting display. Of the more noteworthy shrubs the following deserve mention: *Thuja Lobbi zebra*, *T. occidentalis aurea*, *Abies concolor* (very fine), *A. nordmanniana*, *Thujopsis borealis argentea variegata* (a beautiful plant), *Retinospora plumosa aurea*, *R. obtusa densa* (very pretty), *R. pisifera aurea*, *R. eriocoides*, *Taxus fastigiata aurea*, *T. baccata aurea*, *Cryptomeria japonica elegans*, and a pretty piece of *Silver Box*. *Kalmia latifolia* seedlings saw this fine flowering shrub represented in various tints of colour, and the plants were freely flowered. Although there were few *Rhododendrons*, they were very fresh and clean, the best plants being *Mrs. John Kelk*, *Sir Henry Mildmay*, *B. W. Elliott*, *Maggie Haywood*, and *Beauty of Bagshot*.

Messrs. W. Fromow and Sons, Sutton Court Nursery, Chislewick, W., arranged a very large semi-circular group of Japanese Maples and hardy shrubs. The arrangement of the group was pleasing, and included in it were many valuable plants. Among the Maples were *Acer palmatum dissectum atro-purpureum*, *A. p. roseum marginatum*, *A. p. dissectum variegatum*, *A. p. coralinum*, and others. *Retinospora leptocladia* and *R. squarrosa* were conspicuous. Bamboos and numerous delightful hardy trees and shrubs were much admired. A pretty lot of *Kalmia latifolia* were exhibited in baskets, and interspersed in the group pleasingly.

As usual, Messrs. J. Cheal and Son, Crawley, were well to the fore with a large and comprehensive group of ornamental trees and shrubs. The arrangement of the group left nothing to be desired. The different plants were quite artistically disposed, and charming contrasts thereby effected. Flowering plants were represented by *Kalmia latifolia*, *Veronica newryensis* (very fine), *Philadelphus*, *Hydrangea*, *Rhododendrons*, and other plants. Shrubs were seen in good condition as represented by *Thujopsis dolabrata*, *Cupressus lawsoniana* var., *Thuja japonica filiformis*, and *Retinospora plumosa aurea*. The foregoing are a mere tithe of the good things seen in this group.

By far the best group of ornamental trees and shrubs was displayed by Messrs. Thos. Cripps and Son, Tunbridge Wells, Kent. Exceptionally fine specimens of the better Japanese Maples were exhibited by this firm, and each one gave good evidence of the skill and ability of Messrs. Cripps as growers of these beautiful trees. The most striking specimen Maples were *Acer palmatum palmatifidum*, *A. p. dissectum*, *A. p. d. ornatum*, *A. p. septemlobum elegans purpureum*, *A. p. vitifolium* and the glorious *A. japonicum aureum*, *A. p. sanguinea*, *A. p. purpureum*, and numerous other lovely Maples which space prevents us from naming. *Vitis Coignetiae*, *V. heterophylla variegata*, *Cupressus macrocarpa Crippsii*, *Retinospora obtusa Crippsii*, and *Cupressus macrocarpa lutea* were noteworthy subjects, each of which had a charm of its own. In the centre of the group a magnificent specimen of *Retinospora obtusa Crippsii* was a prominent feature of this grand exhibit.

In association with a display of *Delphiniums* Messrs. James Veitch and Sons, Limited, Chelsea, S.W., arranged as a background a splendid lot of *Sciadopitys verticillata*. Each specimen was in a tub, and appeared to be in the pink of condition. We were much impressed with its value.

MISCELLANEOUS.

Messrs. William Wood and Son, Wood Green, N., exhibited garden statuary, both in iron and terra cotta. Messrs. Wood are exhibiting a new summer-house with revolving chamber at the top, whose advantages are obvious. Another summer-house is built on a raised platform, which is most useful on wet ground. Samples of artificial manure, insecticides, meteorological instruments, garden hose, lawn mowers, spraying instruments, syringes, &c., were also shown by Messrs. Wood and Son. One make of Messrs. Wood's, a hanging basket called "The King," has been supplied to His Majesty's yacht.

The Standard Manufacturing Company, Limited, Ye Olde Moot Hall, Derby, showed horticultural implements in variety, and particularly noticeable were the tree pruners in many different sizes and makes.

The Hull Chemical Works, Limited, showed Bitter Oil, a plant insecticide.

Messrs. Pulham and Son, 71, Newman Street, Oxford Street, W., exhibited garden vases, balustrades, &c., in "Pulhamite," the now well-known material for these purposes.

Mr. John Pinches, 3, Crown Buildings, Crown Street, Camberwell, S.E., had an exhibit of Acme labels in various shapes and styles of lettering. These labels are practically imperishable, and to be highly recommended.

Messrs. D. Dowel and Son, Ravenscourt Avenue, Hammer-smith, W., exhibited an extensive display of Ohlendorff's Peruvian guano and manures, garden pottery, and sundries. "Junofloria," a preparation for preserving cut flowers in water, was exhibited by Junifloria Department, 95 and 96, High Holborn.

"Beetlecute," an infallible exterminator of beetles, cockroaches, ants, woodlice, &c., was shown by Messrs. Valls and Co., 16, Coleman Street, E.C.

Rural Table Decorations were shown by Mr. J. Williams, 4A, Oxford Road, Ealing, and Mr. Robert Sydenham, Tenby Street, Birmingham.

Some very attractive tubs for shrubs were sent by Messrs. Champion and Co., 115, City Road, E.C. They are in various forms and sizes, varnished, polished, and fitted with brass rims and handles.

Messrs. S. and E. Collier, Limited, exhibited garden vases and pottery.

The Pattison Patent Lawn Boots were shown by Mr. H. Pattison, 1, Farm Avenue, Streatham, S.W.

Mr. J. George, 14, Redgrave Road, Putney, S.W., had an exhibit of horticultural sundries, such as manures, insecticides, Mushroom spawn, peat, &c.

Munsted flower glasses from Messrs. James Green and Nephew, 107, Queen Victoria Street, E.C. (the manufacturers), made an interesting exhibit.

Messrs. Lee and Co., Knightbridge Street, Maidstone, exhibited fruit bottling appliances and outfits.

Messrs. William Poore and Co., American Stove Stores, 139, Cheapside, E.C., had a display of greenhouse and hall stoves, hot water apparatus, Beacon oil stove, paraffin oil stoves, &c.

Messrs. Eggett and Son, Thames Ditton, showed photographs of rockeries, alpineries, dripping wells, caves, &c., constructed by them.

Oak park fencing was shown by Mr. W. Bowen, timber merchant, Halesford, Sevenoaks, Kent.

The Economic Fencing Company, Limited, Billiter House, Billiter Street, E.C., showed the patent Feignon Unclimbable Chestnut Pale Fencing.

Mr. W. G. Parkin, 20, Oakdale Road, Sheffield, showed a patent pliable flower support, made of wire, and in the shape of a ball or an egg. This may be put in the neck of the vase or bowl.

Jadoo Limited, Palace Gate, Exeter, showed Jadoo fibre, Petersburg mats, new creeper wall clip, syringes, Jadoo liquid plant food, and other sundries.

Messrs. W. Herbert and Co., Hop Exchange, S.E., had a display of various garden requisites—for instance, leaf-mould, peat manures, Abol insecticide, &c.

Messrs. Osman and Co., 182 and 184, Commercial Street, E., exhibited a large collection of horticultural sundries. We noticed thermometers, prepared green raffia in various shades, flower vases, garden hose, garden cutlery, Osman's garden fertiliser, guano, weatherproof pencils for marking garden labels, punnets, Mushroom spawn, wood wool, &c.

NEW ORCHIDS.

First-class certificates were given to

Odontoglossum Rolfeae majesticum.—A large flower, with broad sepals and petals and fine oblong lip. The ground colour of this variety is white, and is heavily blotched with purple-red. From Messrs. Sander and Sons, St. Albans.

Mitonia vexillaria hindiana.—A beautiful flower, white, except for a faint tinge of purple on the sepals and in the centre of the flower. From Messrs. Sander and Sons.

Laelio-Cattleya Martinetti Plambeau.—The sepals and petals of this flower are deep rosy apricot, while the well-formed lip is rich purple. It is a flower of lovely and striking colouring. The parents are *Cattleya Mossiae* and *Laelia tenebrosa*. From Messrs. Sander and Sons.

Cattleya Mossiae Alexandra.—A large flower, with elegant pure white petals, sepals of the same colour, and a long lip of a beautiful pink-purple. The throat is rich yellow, this colouring extending towards the base of the lip. From Messrs. Sander and Sons.

Cattleya rochiana.—C. Mendell and C. hardyana are the parents of this hybrid *Cattleya*, which is of beautiful form. The white sepals and petals are tinged with purple, while the striking lip is of rich purple colour. From Messrs. Sander and Sons.

Cattleya Warneri alba.—A cultural commendation as well as an award of merit was given to a plant of this lovely *Cattleya*, which had one spike bearing five flowers. These are pure white except for the yellow throat. From M. A. A. Feeters, Bruxelles.

Awards of merit were given to

Odontoglossum ardensissimum Fascinator.—A pretty, symmetrical flower, with well-formed sepals and petals.

The ground colour of these is white, and both are blotched with red-purple. From Messrs. Sander and Sons.

Laelio-Cattleya Martinetti var. ochracea.—A large, spreading flower, with buff-yellow sepals and soft rosy buff petals. The long lip is rosy purple. *Laelia tenebrosa* and *Cattleya Mossiae* are the parents of this hybrid. From Messrs. Sander and Sons.

A cultural commendation was given to Mr. Denny, gardener to Sir William Marriott, Down House, Blandford, for *Disa* × *Clio* (*D. grandiflora* × *D. Veitchii*). The plants were very vigorous and blooming splendidly.

NEW PLANTS.

The following received a first-class certificate: *Lilium auratum platyphyllum Shirley* var.—This fine form was, without doubt, the most handsome hardy-flowering plant at this great show. The ordinary forms of *L. platyphyllum* are well known for their great stature and surpassing beauty, and this is the finest form we have seen. As adding to its greater value from the garden point of view we were informed that the whole of the stock had been raised at Shirley from a single bulb, a most encouraging fact. The plant is fully 6 feet high as shown, the giant white golden-banded flowers of great substance and beauty. From Messrs. Wallace and Co., Colchester.

The following received an award of merit: *Bremneria Mrs. Reuthe*.—This is the result of a cross between *E. turkestanica* and *E. Bungei*, with medium size flowers in a compact spike some 3 feet in length. The colour is a soft lemon-yellow, rather pale in tone. It is very charming. From Mr. G. Reuthe, Keaton, Kent.

Papaver nudicaule (for strain).—The award in this instance was given to a superior strain of these Iceland Poppies, a strain embracing many shades from cream into yellow and gold, and again to fiery orange-scarlet. Some very curious and interesting forms had flaked flowers, the petals distinctly barred with a shade of colour distinct from the body colour of the flower. From Messrs. Storrie and Storrie, Dundee.

Papaver orientale Lady Roope.—A splendid cupped form of an intense salmon-orange shade with a dark blotch of medium size on each petal. Very showy and pure in colour. From Mr. R. C. Notcutt.

Delphinium Monarch.—This variety has a good well-formed spike and dark purplish violet flowers with dark centre. A large and handsome flower. From Mr. R. C. Notcutt, Woodbridge, Suffolk.

Delphinium Rev. W. Wilks.—So far as the single blossoms are concerned, these are of great size and the spike of moderate proportions. The colour is intense purple. A splendid variety. Exhibited by Messrs. Kelway and Son, Langport.

Carnation Shiela.—A beautiful yellow ground fancy kind for the border, the petals freckled and bordered with dark crimson. From Messrs. Cutbush and Sons, Highgate.

Carnation Lady Walcott (Border).—A large and showy variety, salmon or deep rose-salmon in colour. The flowers are large, well formed, and sweetly scented. It is an excellent variety. Shown by Messrs. W. Cutbush and Sons, Highgate.

Peonia Dawn.—A very beautiful semi-double variety, with rich rosy red outer petals, the golden central tuft adding greatly to the attractiveness of this handsome variety. Exhibited by Messrs. Wallace and Co., Colchester.

Lilium Kelloggii.—A very beautiful species, with small, much reflexed flowers, the segments of which are of a rosy hue, freely covered with dark spots. The form of the flower with its size gives one an impression of *L. rubescens*. It is a pretty and dainty Lily. Shown by Messrs. Barr and Sons, Covent Garden.

Noctitana Sanderi.—This fine plant, described as a hybrid between *N. rubra* and *N. affinis*, may quite easily be taken at another season of the year for one of the *Calanthes* in respect to colour. Naturally in the present plant there is a much greater array of blossoms, but the rich rose-pink is a very beautiful and attractive shade in a plant so easily cultivated. If the plant comes true from seeds it will prove a most valuable addition to good garden plants. From Messrs. F. Sander and Sons, St. Albans.

Begonia The Queen.—A fine single variety, the flowers well formed, of a creamy white, touched with the palest salmon-pink. The centre is rich orange-yellow. Shown by Messrs. Laing and Sons, Forest Hill.

Begonia Countess of Warwick (Double).—In every respect a flower of high quality. The colour is rich yellow, heavily bordered with orange. From Messrs. Blackmore and Langdon, Twerton, Bath.

Begonia W. Sparshott.—A fine double-flowering variety, bright scarlet in colour, and remarkable for its substance of petal. From Messrs. B. R. Davis and Son, Yeovil.

Begonia Gipsy Girl.—A single and crested variety. The colour is white, with delicate pink shading. From Messrs. B. R. Davis and Son, Yeovil.

THE GLOUCESTERSHIRE AND CHELTENHAM SOCIETY.

AN excellent show was held by this society on the 24th ult. in the Montpelier Gardens, Cheltenham, which is a most desirable position for the purpose. The groups of plants were numerous and splendidly arranged, and cut flowers were in great perfection. Table decorations were also tastefully arranged, and altogether the show was a great success, reflecting much credit upon the officials.

PLANTS.

For ten greenhouse and stove-flowering plants three entered, of which Mr. Cypher, Exotic Nursery, Cheltenham, was a good first, and staged a collection of splendid plants, including *Stactea profusa*, *Allamanda nobilis*, *Bougainvillea Sanderi*, *Azalea Holfordii*, *Stephanotis floribunda*, *Ixora salicifolia*, and *I. Williamsii*; Mr. Vause of Leamington was second with smaller well-flowered plants.

For six plants, three flowering and three ornamental foliage, Mr. May, gardener to H. O. Lord, Esq., was first; Mr. Maddock, gardener to J. Horlick, Esq., Cowley Manor, second.

For twelve flowering plants in 6-inch pots, Mr. Mutlow, gardener to Major Percy Shewell, was first with small well-flowered plants, embracing some choice *Orobolids*, *Heaths*, and *Kalosanthes*; Mr. Maddock was second with an almost equal production; and Mr. May third. A class for six table-plants was well filled, the premier award being taken by Mr. Mutlow, who was closely followed by Mr. Maddock and Messrs. Pates and Sharp, The Nurseries, Cheltenham. Only two exhibitors staged in a class for six pots of *Lilium*, viz., Mr. May and Messrs. Pates and Sharp, who were placed in the order named.

GROUPS.

Miscellaneous plants arranged in 150 square feet. These always make a grand display at Cheltenham, and on this occasion there were four exhibitors, the chief of which was Mr. Cypher, who arranged a remarkably effective group; Mr. Vause was placed second.

In a corresponding class, confined to amateur exhibitors, Mr. Mutlow arranged the most effective collection of well-grown plants, while Mr. Maddock was placed second amongst four exhibitors. For

ORCHIDS

arranged in a space of 100 square feet, Mr. Cypher was far ahead of his rival, the Cheltenham group being the best feature in the show, and included many grand varieties of choice *Odontoglossums*, *Cattleyas*, *Laelias*, *Cypripediums*, *Oncidiums*, *Masdevallias*, &c., arranged upon a groundwork of Maidenhair Fern.

Tuberous *Begonias* were arranged in splendid condition, both by Messrs. Heath and Son, The Nurseries, Cheltenham, and Messrs. Pates and Sharp, each group being almost perfect.

PELARGONIUMS.

both show and zonal varieties, made effective features. With zonals Mr. Mutlow was the leading exhibitor, Mr. May second, and Messrs. Pates and Sharp third. The show varieties were best shown by Mr. May.

Gloxinias were also well shown in groups, Mr. May being placed first. With a group of Carnations Messrs. Heath and Son were a good first.

TABLE DECORATIONS.

There were four competitors in this class, Miss Watson taking the leading award, followed by Mr. Vause and Miss L. Nicholas, each arranging in a tasteful manner. Messrs. Pates and Sharp had the best bouquet.

ROSES.

For twenty-four blooms: Messrs. Townsend and Sons, Worcester, were the only exhibitors in this class, staging for the season an excellent lot of flowers. In the class for flowers arranged with their own foliage in a space 6 feet by 4 feet, there were two exhibitors, Messrs. Townsend and Son taking the lead with fifty-three varieties, splendidly staged and blended, Messrs. Pates and Sharp being second.

Messrs. Pates and Sharp were a good first with cut flowers and foliage arranged in a space of 6 feet by 4 feet. For a collection of cut flowers of herbaceous plants and hardy perennials, Messrs. Pates and Sharp were again first.

FRUIT.

Mr. Savory, gardener to the Rev. G. Coventry, was first with a fine collection of six dishes of fruit. Mr. Savory was also first for a dish of Strawberries with Royal Sovereign; Mr. Marsh with a dish of Peaches, and Mr. May for Nectarines.

VEGETABLES.

For a collection of eight varieties, Mr. F. Taylor, Ryefield Gardens, was placed first, while Messrs. Pates and Sharp were first with Tomatoes, and also with Cucumbers.

NON-COMPETITIVE EXHIBITS.

Mr. Cypher staged a large and effective group of Pelargoniums, and Mr. White, nurseryman, Worcester, brought an extensive and highly meritorious exhibit of herbaceous flowers.

ROYAL AGRICULTURAL SOCIETY'S EXHIBITION AT PARK ROYAL.

THE HORTICULTURAL DISPLAY.

EXCEPTIONAL interest attaches to the 1903 exhibition of this society, in so far that it is the first meeting held at its permanent home in London. Opinions are divided as to the wisdom of the policy of abandoning entirely the movable provincial exhibitions. Many practical agriculturists of wide experience and influence hold that if the society, instead of abandoning the provincial shows altogether, had reduced the number of places to be visited from seven to four of the most central and populous towns, success would have been assured, and the county agriculturists better pleased and more satisfied.

In the face of serious deficits in its funds, by which the society has been harassed and menaced of late years, the council had a most difficult and arduous task to perform, and we sincerely hope that complete success will yet crown their efforts.

Park Royal is situated on high commanding ground, between Ealing and Willesden, distant from each about two miles. New stations have been erected in close proximity, and a splendid service of trains established from all parts, the show being reached in about a quarter of an hour from Paddington, Euston, King's Cross, and

the District lines. The council are to be congratulated for having got together a show of such excellence and magnitude as to compare favourably with the best that have gone before. We were favourably impressed by the excellent way in which the positions of the different buildings and sheds for the accommodation of the exhibits had been arranged, a perfect modern town it seemed, with wide and long avenues between the buildings; avenues, however, without trees. These, we hope, will be forthcoming before another year comes round. Trees would add immensely to the attractiveness and beauty of the ground, besides affording pleasant shade from a broiling sun such as we are now experiencing. Not the least interesting parts of this great show are the annexes devoted to showing the produce of the earth in the way of cereals, roots, fruits, vegetables, and flowers. So enterprising and ambitious are our great seed merchants that these structures now assume at our agricultural shows quite a palatial appearance, and the attractive and beautiful way in which the contents are arranged reflect the greatest credit on the firms represented, and, judging by the crowds of people by which they were visited, this section of the exhibition was certainly one of the most popular and best patronised.

Messrs. Sutton and Sons' Establishment is immediately on our right as we enter, and, needless to say, by the quality and variety of the exhibits, and by the artistic and attractive way in which they were disposed, the stamp of excellence which characterises all this firm does was apparent here. The leading exhibits, of course, appertained to agriculture more than to horticulture, but the two had been so well blended together in the arrangement as to present one beautiful and harmonious whole. The collection of Peas in pots loaded with well filled pods, seemed most to take the fancy of the country folk, no doubt in their minds conjuring up visions of young ducks and green Peas. The Tomatoes in pots were very fine, and included all their well known popular sorts. Gloxinias and other florist and garden flowers, for which they are celebrated, were there in great profusion, a miniature of their Temple show exhibit in fact.

Messrs. Carter of Holborn, the Royal seed merchants, were well represented, having magnificent exhibits of roots, corn, fruit, and flowers, all interesting and beautifully arranged.

Messrs. Dickson of Chester.—This firm is always well to the fore at all our great agricultural shows, and for variety and quality of exhibit and in the manner of arrangement nothing could have been better than their stand at this show.

Messrs. Webb and Sons of Stourbridge were, as usual, strongly represented, having an immense stand, all replete with the best of everything in season, whether of seeds, fruit, vegetables, or flowers.

Messrs. Dickson, Brown, and Tait.—This Manchester firm by its exhibit did credit to its reputation and to the city and county from which it hails.

Messrs. Dickson and Robinson, also of Manchester, were well represented in all the departments of their immense business, showing produce of the highest quality.

Messrs. Harrison of Leicester.—This well-known Midland firm had a most attractive stand filled with the highest quality produce.

THE TEMPLE ROSE SHOW.

THE National Rose Society held its great exhibition in the Temple Gardens on Wednesday last. Considering the bad weather that has been experienced the display may be said to have been very satisfactory, but that is not saying that it was a really good one. There were numerous good Roses in the show, although many of them were small; the heat of the tents was felt no less by the Roses than by the visitors. The latter appeared not to be very numerous. Messrs. Harkness and Co.'s exhibit that won the first prize for seventy-two blooms contained many good flowers, and in the other first prize stands

there were some splendid blooms, but generally speaking the Temple Rose show was not so good as one could have wished, although, as we said before, this must be qualified by the remark that considering the bad season it was better than expected. No new Rose gained a gold medal.

NURSERYMEN.

Seventy-two blooms, distinct varieties: First, Messrs. R. Harkness and Co., Hitchin, with a very bright lot indeed, the coloured varieties were particularly good. Among these the best were Grand Mogul, Prince Arthur, Dupuy Jamain, E.Y. Teas, Gustave Piganeau, Suzanne Marie Rhodocanashi, and Mme. Housman. The best pale coloured blooms were Mrs. Edward Mawley, Bessie Brown, Cleopatra, White Maman Cochet, Boadicea, Clara Watson, Souvenir de Pierre Notting, Frau Karl Druschki, Lady Fitzwilliam, and Marchioness of Londonderry. Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, were second, with an exhibit that had many good blooms, Medea, Empress Alexandra, White Lady, Papa Lambert, Bessie Brown, and Marie Corelli were of the best; Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester, were third. Antoine Rivoire, Mildred Grant, and Souvenir de Pierre Notting were good blooms.

Forty distinct varieties, three blooms of each: First, Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, with some lovely flowers, particularly of Mildred Grant, Countess of Caledon, Mrs. W. J. Grant, Helen Keller, A. K. Williams, Bessie Brown, Empress Alexandra, Medea, and La France; second, Messrs. Alexander Dickson and Sons, Limited, Newtownards, County Down, with, on the whole, smaller blooms and hardly so fresh. Mildred Grant, Mrs. W. J. Grant, Bessie Brown, Marquise Litta, White Lady, and Ulster were of the best. Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester, were third, Mildred Grant, Souvenir de Pierre Notting, Caroline Testout, and Robert Scott were the best.

Forty-eight blooms, distinct: First, Messrs. G. and W. Burch, Peterborough, with a somewhat uneven stand that contained numerous good blooms. Among them were Luciole, La France, Comte Raimbaud, Lady Fitzwilliam, Mrs. Edward Mawley, Mr. John Laing, Her Majesty, Souvenir de President Carnot, and Mme. Gabrielle Luizet. Mr. Hugh Dickson, Belfast, was a very good second. His stand contained very good blooms of Gustave Piganeau, Frau Karl Druschki, La Fraicheur, Duchess of Abercorn (new), Ulster, Countess of Caledon, and La France. Messrs. J. Burrell and Co., Howe House Nurseries, Cambridge, were third. Mildred Grant and Mrs. Edward Mawley were excellent blooms.

Twenty-four blooms, distinct: First, Mr. George Mount, Canterbury, with good flowers, notably of Mrs. W. J. Grant, Prince Arthur, Caroline Testout, La France (splendid), Lady Fitzwilliam, and Mildred Grant. Second, Mr. Charles Turner, Royal Nurseries, Slough. Mrs. E. Mawley, Ulster, Mrs. J. Laing, and Killarney were all good. Third, Mr. Thomas Rigg, Caversham, Reading. La France and Mrs. W. J. Grant were the best blooms.

Twenty-four varieties, three blooms of each: First, Mr. Charles Turner, Slough, with flowers of good form and fair size. Ulster, Tom Wood, La France, and Mrs. John Laing were the best. Mr. George Mount, Canterbury, was second with less regular blooms, of which Lady Mary Fitzwilliam, White Lady, Margaret Dickson, and Liberty were the best. The third prize was won by Mr. Hugh Dickson, The Nurseries, Belfast. E.Y. Teas, Marquise Litta, and Mrs. J. Laing were very good.

TEAS AND NOISETTES.

Twenty-four blooms, distinct: First, Mr. George Prince, Longworth, Berks, with some beautiful blooms though some were small. Mrs. E. Mawley was a magnificent flower, and Comtesse de Nadaillac, Mme. Hoste, Muriel Graham, The Bride, and Empress of Russia were very good. Messrs. D. Prior and Son, Colchester, were a good second. Mrs. Edward Mawley, The Bride, Caroline Kuster, Cleopatra, and Innocente Pirola were all good. Third, Messrs. Frank Cant and Co., whose exhibit

contained a splendid bloom of Mrs. Edward Mawley.

Twelve blooms, distinct: First, Messrs. J. Burrell, Howe House Nurseries, Cambridge, with rather small flowers. The best were Mrs. Edward Mawley, Souv. de Pierre Notting, Lady Roberts, and Empress Alexandra; second, Mr. John Mattock, New Headington, Oxford. Mme. Hoste, Medea, and Cornelia Kock were very good blooms.

Fourteen distinct varieties, three blooms of each in vases: First, Messrs. D. Prior and Son, Colchester, with Marie van Houtte, Maman Cochet, Mrs. Edward Mawley, Anna Olivier, and Souv. de S. A. Prince as the best; second, Mr. George Prince, Longworth, Berks, Mrs. E. Mawley, Medea and Bridesmaid being splendid.

EXHIBITION ROSES IN VASES.

Twelve distinct varieties, seven blooms of each in vases: First, Mr. George Mount, Canterbury, with a very good exhibit. Mrs. Sharman Crawford, Mrs. W. J. Grant, Ulrich Brunner, Liberty, Mrs. J. Laing, and Caroline Testout were very fine; second, Mr. George Prince, Longworth, with rather smaller blooms, of which Mrs. S. Crawford, Bessie Brown, and Anna Olivier were best; third, Messrs. R. Harkness and Co., Hitchin, Herts, with some very good blooms.

Nine distinct varieties of Teas and Noisettes, seven blooms of each, in vases; Mr. Prince, who won first prize, was the only exhibitor, Mrs. E. Mawley was splendidly shown.

GARDEN ROSES.

Thirty-six distinct varieties, three trusses of each: First, Messrs. Paul and Son, the Old Nurseries, Cheshunt, with a beautiful lot, good blooms, well arranged in vases. Mme. Abel Chateau, Dawn (H.T.), W. A. Richardson, Macrantha, Leonie Lamesch, Una, Camens, and Mme. Pernet Ducher were of the best; second, Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester, who also showed some good bunches. Souv. de C. Guillot, Camens, Mme. Rene Gerard, Mme. Louise Poncet, Mme. d'Arblay, Rainbow, and Killarney were of the best. Messrs. George Cooling and Sons, Bath, were third. Soleil d'Or and Moschata Nivea were very attractive.

Eighteen bunches: First, Mr. George Prince, Longworth, Berks, with some lovely flowers. Belle-fleur (new H.P.), W. A. Richardson, Papillon, and Purity were among the best. Mr. Charles Turner was second. His best bunches were Mme. Charles, Flora McIvor, Mme. Falcot, Mme. A. Chateau, and Mme. P. Ducher.

Eighteen distinct varieties of summer-flowering Roses (H.P.'s, H.T.'s, Teas and Chinas excluded): First, Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester. Maiden's Blush, Myrianthes, Persian Yellow (lovely), The Lion (single), Red Provence, Rosa Mundi, Red Damask, and The Wallflower were included. Second, Messrs. Paul and Son, Cheshunt. Their best bunches were of Anne of Geierstein, Striped Provence, Moss Julie de Mersan, Reine Blanche (single), Cabbage, and Old Red Damask. Third, Messrs. George Cooling and Sons, Bath.

ROSES IN POTS.

Mr. Charles Turner was first for a group of Roses in pots (150 square feet). It included standards of S. de Pierre Notting, Reine André, Alberic Barbier, Paul Transon, bushes of Queen Alexandra, and dwarf plants in variety. There were no more exhibits in this class.

OPEN CLASSES.

Twelve Hybrid Teas: First, Messrs. D. Prior and Son, Colchester, with some lovely blooms. Bessie Brown, Lady Mary Fitzwilliam, and Mildred Grant were the best. Second, Messrs. Alex. Dickson and Sons, Limited, Newtownards, with beautiful Mildred Grant and Alice Lindsell. Third, Messrs. Frank Cant and Co.

Twelve blooms (any white or yellow) in vase: First, Messrs. Alex. Dickson and Sons, with a splendid vaseful of Bessie Brown. Second, Mr. John Mattock, New Headington, Oxford, with good Medea.

Twelve blooms (any other than white or yellow) in vase: First, Messrs. Alex. Dickson and Sons, Newtownards, with a vase of Mrs. W. J. Grant.

Second, Mr. Charles Turner, with Mrs. J. Laing, both exhibits being splendid. Third, Mr. G. Mount.

Nine blooms of any new Rose: First, Messrs. Alex. Dickson and Sons, Newtownards, with Mildred Grant, a very good exhibit. Second, Messrs. George Bunyard and Co., Maidstone, with Robert Scott, pink, almost salmon-pink. Third, Messrs. Benj. R. Cant and Sons, Old Rose Gardens, Colchester, with a lovely lot of Frau Karl Druschki. Twelve blooms of new Roses, offered in 1900 and subsequently: First, Messrs. Benj. R. Cant and Sons, Old Rose Gardens, Colchester, with an exhibit that included Souv. de Pierre Notting, Robert Scott, William Askew, Mildred Grant, and Perle von Godesberg. Second, Messrs. Paul and Son, Cheshunt. Souv. de Pierre Notting, David Harum (lovely flesh-pink), Mildred Grant, and Prince de Bulgarie were of the best.

NEW SEEDLING ROSES.

Not less than three trusses of any new seedling Rose or distinct sport. A Card of Commendation was given to each of the following:

Blush Rambler.—From Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, a very free flowering Polyantha Rose, with Apple blossom-coloured flowers.

Climbing Rose Maharajah.—This is a seedling H.P. pillar Rose, with very large, single, rich crimson blooms, and will doubtless prove very effective upon a pillar. Some of the blooms measured 5 inches across. Evidently a vigorous grower. From Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester.

Mme. Levasseur.—This, which is much like a very dwarf Crimson Rambler, has been described on previous occasions. Shown by Mr. W. J. Wood, Swatling, Southampton.

Mrs. O. G. Orpen.—A new seedling Damask Rose, with large, rich pink blooms; the stamens are numerous, and add to the attractiveness of the flower.

DECORATIVE CLASSES.

Arch, decorated with long sprays of climbing Roses: First, Messrs. Paul and Son, who showed the variety Tea Rambler, with good-sized, semi-double pink flowers; second, Mr. George Prince, Longworth, Berks, with climbing White Pet; third, Mr. John Mattock, New Headington, Oxford.

Twelve single Roses, distinct: First, Messrs. George Cooling and Sons, Bath, with good bunches of Austrian Yellow Briar, Crimson Bedder, Leuchstern, The Lion, moschata alba, and others; second, Messrs. Paul and Son, Cheshunt. Paul's Carmine Pillar and Paul's Single White were fine.

Nine distinct Roses, suitable for buttonholes: First, Mr. George Prince, Longworth, Berks, with Marie Van Houtte, Papillon, Souvenir de J. B. Guillot, and others; second, Mr. John Mattock, New Headington.

Three sprays of Roses: First, Mr. Mattock; second, Mr. George Mount; third, Miss Jessie Langton, Raymead, Hendon.

AMATEURS.

Thirty-six blooms, distinct: First prize and the National Rose Society's champion challenge trophy, E. B. Lindsell, Esq., Bearton, Hitchin. White Lady, Ulster, Lady Fitzwilliam, Mrs. Grant, Mrs. John Laing, Innocente Pirola, and La France were of the best. The blooms of Mrs. John Laing in this stand won the silver medal for the best Rose other than H.T., Tea, or Noisette. Second, O. G. Orpen, Esq., West Bergholt, Colchester, with smaller blooms. Cleopatra, Bessie Brown, Mildred Grant, The Bride, and Medea were of the best. Third, Conway Jones, Esq., Huclecote, Gloucester, with very fresh flowers, though small.

Twenty-four blooms, distinct: First, A. Tate, Esq., Downside, Leatherhead, with excellent White Lady, Mrs. Edward Mawley, Kaiserin Augusta Victoria, and La France. Second, T. B. Gabriel, Esq., Hart Hill, St. John's, Woking. His blooms were small, though of good form. Souvenir d'Elise Vardon was a lovely flower. Third, E. M. Eversfield, Esq., Dene Park, Horsham.

Twenty-four blooms, distinct (another class): First, E. B. Lindsell, Esq., Bearton, Hitchin.

Mrs. Grant, Lady Mary Fitzwilliam, Kaiserin Augusta Victoria, and Mrs. Laing were the best of a very good box. O. G. Orpen, Esq., was second with a somewhat uneven display, and C. B. Haywood, Esq., Woodhatch, Reigate, was third with large and rather coarse blooms.

Twelve distinct varieties, three blooms of each: First, E. B. Lindsell, Esq. Mrs. Grant, Marquise Litta, and K. A. Victoria were splendid. Second, C. B. Haywood, Esq., Reigate. Margaret Dickson, Caroline Testout, and Mme. Gabrielle Luizet were the best. Conway Jones, Esq., Huclecote, Gloucester, was third.

Nine blooms of any Rose except Tea or Noisette in vase: First, Rev. J. H. Pemberton, with a splendid vaseful of Caroline Testout. Second, C. B. Haywood, Esq., with Mrs. John Laing.

GROWERS OF LESS THAN 2,000 PLANTS.

Twenty-four blooms, distinct: First, R. E. West, Esq., Reigate. La France No. 2 was the best bloom of a fairly good exhibit. Second, W. C. Romaine, Esq., The Priory, Old Windsor. Dupuy Jamin, Niphetos, and Innocente Pirola were the best. Third, E. M. Eversfield, Esq., Denne Park, Horsham.

Eight distinct varieties, three blooms of each: First, E. M. Eversfield, Esq. Ulrich Brunner, Mme. G. Luizet, and Bessie Brown were the best. Second, W. C. Romaine, Esq., Old Windsor, with Maréchal Niel, very good.

Seven blooms of any Rose except Tea or Noisette in vase: First, W. C. Romaine, Esq., Old Windsor, with a lovely vase of Jeannie Dickson. Second, E. M. Eversfield, Esq., with Mrs. John Laing. Third, Rev. Hugh A. Berners, Harkstead Rectory, Ipswich, with Mme. Abel Chatenay.

OPEN TO GROWERS OF LESS THAN 1,000 PLANTS.

Twelve blooms, distinct: First, C. B. Gabriel, Esq., Hart Hill, St. John's, Woking, with very good blooms, Lady Mary Fitzwilliam, La France, and Bessie Brown were the best; second, George Moules, Esq., Hitchin, Frau Karl Druschki was very good; third, Ernest Wilkins, Esq., Roeddale, Sidcup.

Five blooms (except Tea or Noisette): First, G. H. Baxter, Esq., Hutton Park, Brentwood, with Marquise Litta; second, F. R. Curtis, Esq., Wormingford; third, Ernest Wilkins, Esq.

GROWERS OF LESS THAN 500 PLANTS.

Nine blooms, distinct: First, Courtney Page, Esq., Earlsdown, Enfield, with a beautiful lot, Bessie Brown, Mrs. W. J. Grant, and Tennyson were excellent; second, J. J. Thompson, Esq., Bounds Green, N., with beautiful Caroline Testout; third, Mrs. E. A. Moulton, Stevenage, with very good White Maman Cochet. There were numerous other exhibitors in this class.

Six blooms, distinct: First, Dr. T. E. Pallett, Eden House, Earl's Coln, Essex, with beautiful K. A. Victoria, Mme. Hoste, and others. Second, A. C. Turner, Esq., Tatton, Edgware. Mrs. Grant being the best. Third, F. H. Leslie, Esq., Epcomb, Hertford. Medea and Innocente Pirola were the best.

Five blooms (Tea or Noisette excepted) in vase: First, R. W. Bowyer, Esq., Hertford Heath, Hertford, with Mrs. W. J. Grant. Second, The Rev. F. J. Fulford, Flaxley Vicarage, Gloucester, with La France. Third, A. C. Turner, Esq.

GROWERS OF LESS THAN 200 PLANTS.

Six blooms, distinct: First, Miss Alice M. Lucas, Hitchin; second, Dr. Ernest Maltby, Feltham, Middlesex; third, Miss Ethel M. Wightman, Bengoe, Herts.

EXTRA CLASSES.

Twelve blooms, distinct: First, Mrs. J. E. Times, Bedford Road, Hitchin, Herts, with a lovely boxful. White Lady, K. A. Victoria, and Mrs. Laing were of the best. This exhibit won the challenge cup offered to growers of less than 1,000 plants. Second, George Moules, Esq., Hitchin, Herts. La France and Ulster were excellent.

Four distinct varieties, three blooms of each: First, William Kingston, Esq., with Caroline Testout, the best; second, Ernest Wilkins, Esq.; third, G. H. Baxter, Esq., Brentwood.

The Ramsay Cup, given for twelve blooms,

distinct, was won by Alfred Tate, Esq., Downside, Leatherhead, with some very good blooms. Maman Cochet, Muriel Grahame, K. A. Victoria, and White Maman Cochet were the best. This exhibit contained the best Tea or Noisette (Muriel Grahame), and also the best Hybrid Tea (Bessie Brown); second, A. Hill Gray, Esq., Beaulieu, Newbridge, Bath, with Mildred Grant, Catherine Mermet, and others very good; third, Rev. J. H. Pemberton.

Six blooms (open to those who have never won a prize at the National Rose Society's show): First, Dr. T. E. Pallett, Earl's Coln, Essex. Bessie Brown was a very good bloom. Second, E. Percy Sugden, Esq., Winchmore Hill, N., Maman Cochet and Mme. A. Chatenay being the best. Third, the Rev. J. B. Shackle, Dropmore Vicarage, Maidenhead.

Six blooms (in four varieties): First, A. E. Farnden, Esq., Sutton; second, W. R. Hammond, Esq., Burgess Hill, Sussex; third, Miss Du Berisson, Tanfield, W. Clendon.

Six blooms, distinct: First, Hammond T. Hinton, Esq., Heytesbury, Wilts; second, Mrs. Ethel M. Wightman, Bengoe, Herts; third, R. F. Lambe, Esq., Burgess Hill.

Six blooms (grown within eight miles of Charing Cross): The challenge cup was won by J. T. Thompson, Esq., Bound's Green, N. Mrs. J. Laing and Caroline Testout were very good. Second, W. G. Adcock, Esq., Torrington Park, N. Third, E. R. Smith, Esq., Muswell Hill.

Six blooms of new Roses: Second, Rev. J. H. Pemberton. Frau Karl Druschki was the best. Second, G. W. Cook, Esq., Wood Glen, Muswell Hill, N. La Tosca was the best bloom.

TEAS AND NOISSETTES.

Eighteen blooms, distinct: The National Rose Society's Tea and Noisette Challenge Trophy was won by A. Hill Gray, Esq., Bath, with some grand blooms of Medea, Catherine Mermet, Mrs. E. Mawley, Mme. Hoste, and others; second, Rev. F. R. Burnside, Great Stambidge Rectory. Mrs. E. Mawley, Sylph, and Innocente Pirola were the best. Third, O. G. Orpen, Esq.

Eighteen blooms, distinct: The Cocker Challenge Cup was won by the Rev. F. R. Burnside, Great Stambidge Rectory, with Sylph, Mrs. E. Mawley, The Bride, and others, very good; second, A. Hill Gray, Esq.; third, C. B. Hayward, Esq.

Eight varieties, three blooms of each: First, A. Hill Gray, Esq., Bath, with Mrs. E. Mawley splendidly shown. Bridesmaid also. Second, Rev. F. R. Burnside. Third, O. G. Orpen, Esq.

Seven blooms of one variety in vase: First, Rev. F. R. Burnside with beautiful White Maman Cochet; second, A. Hill Gray, Esq., with Medea; third, E. M. Eversfield, Esq.

GROWERS OF LESS THAN 500 PLANTS.

Twelve blooms, distinct: First, J. B. Gabriel, Esq., with some good blooms, notably Golden Gate and Muriel Grahame. Second, G. Whittle, Esq., Belgrave Avenue, Leicester. Medea was splendid. Third, R. Foley Hobbs, Esq., Thornelee, Worcester.

GROWERS OF LESS THAN 200 PLANTS.

Nine blooms, distinct: First, G. H. Baxter, Esq., Brentwood; a good second, Arthur Munt, Esq., Hedgerley, Slough; third, F. R. Curtis, Esq.

Six blooms, distinct: First, W. R. Hammond, Esq., with very good flowers; second, R. W. Bowyer, Esq.; third, A. C. Turner, Esq.

The prizes, which were on view, were supplied by the Goldsmiths' and Silversmiths' Company.

Extra classes for amateurs in the Tea and Noisette section included one for four distinct varieties, three blooms of each. The prizes in this class were offered by Mr. George Prince. The piece of plate, of the value of £3 3s., for first prize was won by Alfred Slaughter, Jarvis Villa, Steyning, with a very pretty series, Mrs. E. Mawley, Maman Cochet, and Muriel Graham being in good form. Second prize was awarded to the Rev. F. J. Fulford, Flaxley Vicarage, Gloucester, the trio of Maman Cochet being very fine. The third stand was disqualified.

Five blooms (one variety) in vase: First, G. H. Barter, Esq., with *Medea*; second, Rev. F. J. Fulford, also with *Medea*; third, R. W. Bowyer, Esq., with *Anna Olivier*.

Five entries for six blooms in not less than three varieties, open to amateurs who have never won a prize at any of the society's shows before, made an interesting display. First prize, a piece of plate offered by Messrs. R. H. Bath, Limited, Wisbech, for leading honours was won by H. Clinton Baker, Esq., Bayfordbury, Hertford, with a nice and even box of blooms. *Cleopatra*, Mme. de Watteville, and Mme. Hoste were good. Second prize was won by the Rev. J. B. Shackle, Dropmore Vicarage, Maidenhead, and third prize was secured by Mrs. H. Anne Sivewright, The Rise, Oxford.

EXHIBITION ROSES IN VASES.

The class for nine vases, five blooms in each, was empty, and but one entry was forthcoming in Class 59 for six distinct varieties of *Teas* and *Noisettes*, seven blooms in each. In this instance A. Hill Gray, Esq., Beaulieu, Newbridge, Bath, was placed first with a very pretty set, showing a light and easy style of arrangement. *Bridesmaid*, Mme. Cusin, Anna Olivier, and The Bride were his best varieties. The piece of plate awarded as first prize was offered by R. E. West, Esq.

Class 60, for five distinct varieties, five blooms of each, found only one exhibitor. The first prize was awarded, although the general opinion appeared to be that this exhibit was very generously considered. The piece of plate, value two guineas, offered by Mr. Will Taylor, Hampton, was awarded to Miss Beatrice H. Langton.

DECORATIVE SECTION FOR LADIES ONLY.

Seven charming tables competed in the class for a decoration of cut *Roses* for dinner table, arranged with any cut foliage, Ferns, or grasses.

A lovely arrangement of large- and medium-sized single *Roses* of white and blush-tinted sorts won first prize for Mrs. O. G. Orpen, West Bergholt, Colchester. The flowers, however, were rather too crowded, and the general opinion was the arrangement was too "squat." Otherwise it was a charming exhibit. Mrs. Holland, Silverdale Grange Road, Sutton, was placed second, also with a beautiful arrangement of pink and rose-pink *Tea Roses* of good quality. This was a lovely piece of colour, but lost points for want of *Rose* foliage, of which there was absolutely none. *Selaginella* trailing growths were pretty. Third prize was won by Miss Jessie B. Langton, Raymond, Hendon, with pretty rose-pink single *Roses* and rather too much greenery. Fourth prize was secured by Miss A. F. Harwood, 16, St. Peter's Street, Colchester, whose exhibit deserved a better position. The first prize, a piece of plate, value five guineas, was offered by Mr. Charles Turner, Slough, and the second and third prizes by A. Tate, Esq.

Nine exhibits of a bowl of *Roses* made a brave display. In this instance Miss Jessie B. Langton was placed first, with a bold arrangement of charming blush single sort. Mrs. O. G. Orpen again scored with a deep rose-coloured arrangement, clusters of small singles contrasting with large blooms. A very handsome bowl of coppery *Tea Roses* won third prize for Miss A. F. Harwood; this needed better setting up. The prizes in this class were offered by T. B. Gabriel, Esq.

The class for a vase of cut *Roses* brought out even competitors, Mrs. Edward Mawley, Great Berkhamstead, was placed first with a lovely vase of Mrs. W. J. Grant, buds and large blooms being pleasingly associated. Miss Jessie B. Langton was second, with a very handsome vase of cream-coloured *Tea Roses*, and Miss Harwood third with *La France*. Messrs. G. Bunyard and Co., Maidstone, offered a piece of plate value £2 2s. this competition as first prize.

Five entries in the class for a basket of *Roses* made a welcome change. First prize, a piece of plate, offered by Mr. John Mattock, Oxford, and valued at £2 2s., was won quite easily by Mrs. Orpen. This was a bold and handsome arrangement. Lovely blooms of the sweet-scented class were charmingly associated. Equal second prize,

were awarded respectively to Miss Harwood and Miss Jessie B. Langton, each with an interesting exhibit.

GARDEN OR DECORATIVE ROSES.

The class for eighteen bunches, garden or decorative *Roses*, was represented by two exhibits only, but they were superbly fine. The first prize was well won by Alfred Tate, Esq., Downside, Leatherhead. His bunches were large and bold, of beautiful colour, and nicely disposed. *Lady Battersea*, Irish Glory, Cecile Brunner, *Macrantha*, *Gustave Regis*, W. A. Richardson, *Rosa Mundi*, and *Augustine Guinoisseau* were well shown. The Rev. Joseph H. Pemberton, Havering-atte-Bower, Essex, was placed second with a charming series. *Reine Olga de Wurtemberg*, Mme. Alfred Carrière, Paul's *Carmine Pillar*, Anne of Geierstein, and *Lady Curzon* were his best bunches. Miss Willmott, V.M.H., gave the first prize—a piece of plate—in this class.

There were only two exhibitors in the class for twelve bunches of garden *Roses*. Mrs. A. F. Perkins, Oak Dene, Holmwood, Surrey, was an easy first with rather tightly arranged bunches of good sorts. Conspicuous were Dr. *Rouges*, *Macrantha*, *Marquis of Salisbury*, Mme. Chedane *Guinoisseau*, and *Camoens*. The second prize was awarded to the Rev. F. J. Fulford, who had an interesting series of bunches. The first prize—a piece of plate value £5 5s.—was presented by the Girdlestone Memorial Fund.

Six lovely exhibits in the class for six bunches of garden *Roses* found A. C. Turner, Esq., Tatton, Edgware, first, with a superb lot. Mme. Eugène Rosal, Isabella Sprunt, W. A. Richardson, *Marquis of Salisbury*, *Camoens*, and Mme. Chedane *Guinoisseau* were the varieties exhibited. E. Mawley, Esq., was second with a pretty exhibit, and G. W. Cook, Esq., Woodside, Muswell Hill, N., was a good third. The last exhibit contained some superb bunches. The first prize was a piece of plate offered by O. G. Orpen, Esq.

Six bunches of buttonhole *Roses*: First, O. G. Orpen, Esq., with a pretty and interesting lot of flowers, *Ma Capucine*, Mme. Hoste, and *Anna Olivier* being fine. A. C. Turner, Esq., was second also with a pretty exhibit.

Five distinct varieties of garden *Roses*, three sprays of each, were also interesting. Mr. R. Sydenham's piece of plate, value £5 5s., was won by O. G. Orpen, Esq., second prize by Rev. J. H. Pemberton, and third prize by Miss Beatrice Langton.

NON-COMPETITIVE.

Messrs. W. Cutbush and Sons, Highgate, N., exhibited an attractive group of *Malmaison* and *Tree Carnations*, arranged with *Lantanas*, *Marguerite Coronation*, *Verbenas* Ellen Willmott, &c. Among the *Malmaisons* were *Churchwarden*, *scarlet*; *Nautilus*, flesh colour; *Baldwin*, rich rose; *Florizel*, red rose; and *Grace*, large rich pink. Of border *Carnations* there were *Ruby*, pretty cerise-red; *Herbert J. Cutbush*, bright red; *King Ulher*, maroon-red; *Prince of Orange*, buff and red; *Lady Wolverton*, salmon-red.

Messrs. Cannell and Sons, Swanley, Kent, showed a brilliant lot of *Cannas* in several good varieties. The plants were well bloomed, and growing in small pots.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, had an exhibit of *Oroids* that included *Cattleya gaskelliana splendens*, *Lelio-Cattleya canhamiana*, *Cattleya intermedia alba*, *C. Mossiae Lowi*, *Lælia Iona*, *Cypripedium gigas Cordeani*, and several *Odontoglossums*.

Messrs. R. Wallace and Co., Colchester, exhibited an interesting display of hardy flowers, including *Iris Monnierii*, *I. intermedia*, and *I. gigantea*, all large-growing sorts; *Lilium excelsum*, *L. Martagon dalmaticum*, *L. M. album*, *L. Dalhousoni*, *L. auratum rubro-vittatum*, *L. tigrinum splendens*, *L. Henryi*, as well as *L. umbellatum* varieties. *Ixias* in many brilliant colours, *Gazania Trinacria*, *Heuchera micrantha rosea*, *Gillenia trifoliata*, *Canterbury Bells*, *Brodiaea laxa*, *Calochorti*, and Japanese *Irises* were also largely shown in this bright display.

Messrs. Dobbie and Co., Rothessay, N.B., had a pretty exhibit of *Pansies* and *Violas* attractively

arranged in sprays, and also on exhibition boards. Some lovely varieties were among them.

The *Munstead* flower glasses, in natural and green-tinted glass, were shown by Messrs. James Green and Nephew, 107, Queen Victoria Street, E.C.

The well-known and very useful *Acme* labels were shown by Mr. John Pinches, 3, Crown Buildings, Crown Street, Camberwell, S.E.

Messrs. W. Spooner and Son, Arthur's Bridge Nursery, Woking, had a pretty display of *Roses* in bunches, and single blooms also. The latter were at the back and at each end of the exhibit, and comprised such as *Electra*, *Carmine Pillar*, *Lady Penzance*, *Perle des Jardins*, *Souv. de Catherine Guillot*, *Gustave Regis*, W. A. Richardson, *Maman Cochet*, and *Cheshunt Scarlet*.

Messrs. George Bunyard and Co., Maidstone, showed *Roses* in bunches, and also boxes of single flowers. Among the former were *Killarney*, Mme. Hoste, *Macrantha*, *Homère*, *Leonie Lamesch*, *Amazon*, *Austrian Copper*, and of the latter *Prince Arthur*, *Ulster*, *La France*, *Margaret Dickson*, and *Antoine Rivoire* were good.

Mr. George Mount, Canterbury, had an excellent display of *Roses* in vases. Particularly good were *Caroline Testout*, *La France*, Mrs. John Laing, *Ulrich Brunner*, Mme. Hoste, *Margaret Dickson*, Mrs. W. J. Grant, and others. The flowers were well and boldly arranged, and made an attractive exhibit.

Messrs. George Jackman and Son, Woking, Surrey, also had an exhibit of *Roses*, bunches and single blooms. *Gypsophila* was interspersed among the former, but was of doubtful decorative value. W. A. Richardson, *Gustave Regis*, Mme. Alfred Carrière, *Carmine Pillar*, *Amy Robsart*, and *Soleil d'Or* were very good among the bunches, while of the single blooms *Marquise Litta*, Mrs. W. J. Grant, *Victor Hugo*, Mrs. E. Mawley, and *Caroline Testout* were the best.

Hobbies Limited, Dereham, showed the new Rambler *Dorothy Perkins*, plants in pots bearing a profusion of rich pink flowers. Small vases of other *Roses* were also shown by Hobbies Limited, *Lady Battersea* being excellent.

Frank R. Curtis, Esq., Morden Grange, Wormingford, near Colchester, exhibited some very good single blooms.

THE BEST BLOOMS.

The silver medals of the society were awarded as follows:

Nurserymen.—For the best Hybrid *Tea*, to Bessie Brown, one of the most perfect specimen blooms ever seen. From Messrs. D. Prior and Sons.

For Hybrid *Perpetual*, to Mrs. John Laing, a bloom of grand form and superb finish; also from Messrs. D. Prior and Son.

For the best *Tea Rose*, to Messrs. Prince for a magnificent bloom of Mrs. Edward Mawley.

Amateurs.—For the best Hybrid *Tea*, Bessie Brown, a very handsome bloom. Exhibited by A. Tate, Esq.

For the best *Tea* or *Noisette*, a lovely bloom of *Muriel Grahame*; also from A. Tate, Esq.

For the best Hybrid *Perpetual*, to Mrs. John Laing. Exhibited by E. B. Lindsell, Esq. A very handsome bloom, perhaps rather pale in colour.

MISCELLANEOUS.

JUNE IN THE BROOME GARDENS, BATH.

SELDOME it is that one can walk through these gardens without seeing much beauty, and even a frequent itinerary affords interest, since there is sure to be something fresh to chronicle. In early June the rockeries are particularly interesting, although the bog garden is somewhat in abeyance, one of the brightest things in it being *Lysimachia Nummularia aurea* in splendid colour. Although this *Creeping Jenny* belongs to a far from rare and rather uninteresting family, it is distinctly valuable for bog garden edgings and so on, and has

not the common sort of look that, rightly or wrongly, I always think there is about the ordinary Jenny of the neglected window-box and London area, perhaps because one often sees the plant in such squalid surroundings.

On the sunny side of the long broad walk that intersects the garden several more rockeries have been made, chiefly planted with Saxifrages and Sempervivums, and on these some large patches of Sempervivum arachnoideum show plainly how well another rather ordinary plant repays good culture and a knowledge of its best use. Seen in the usual little tufts *S. arachnoideum* is nothing; in a rocky hollow, low down beside the path and in full sun, it is a lovely bit of colour, with its pale leaden green in shades, and its rosy fleshy buds pushing above. Some young tufts of *Arabis lucida variegata* planted among the encrusted Saxifrages and House Leeks are curiously like them in habit, with neat rosettes of deep green edged with butter yellow, and are not a bit like the rest of the family. *Linaria pallida* was pretty, beginning to be a carpet plant to some of the larger Saxifrages. *Achillea rupestris* is a pretty little plant, also enjoying the sun on this rockery. Its white flowers are just like those of *Achillea umbellata*, sharing the same rather uncommon texture. Two or three *Ranunculus* species were in bloom, but these are mostly of botanical interest rather than fit for the show rockery, for their bloom is insignificant compared with the rather weedy growth of foliage, and *R. aconitifolius*, which everybody knows, is a very good type of many of them in habit. *Geum montanum*, growing well by some rock steps on the shady side of the walk, is a charming thing. It has neat leathery leaves, deeply cut in round tufts close to the ground, and the yellow flowers, Buttercup-shaped, are large in proportion and solid in texture, curiously tufted as they go to seed, with spreading reddish filaments.

A little further on two *Ramondia pyrenaica* presented an instructive contrast between (presumably) a young plant and an older one. The latter was really splendid, a huge rosette, vigorous in green, and covered with very fine blossoms of extra size. These were on the face of a shelf below a planting of *Rhododendron ferrugineum* just beginning to flower. I looked about hoping to see some of the other *Ramondias* doing equally well, but there were no more, at all events in that particular site. *Pernettya mucronata* looked very pretty close by; this is one of those most useful little shrubs that can be safely planted on rockeries and will not encroach. There is often a good deal of flatness about rockery work devoted to choice alpine, and those who suffer from this tendency to too level planting, either in themselves or in their gardeners, should mark and learn Mr. Milburn's methods, for he knows exactly how to back up and diversify his small alpine with the right sort of shrub planting. *Olearia stellulata* was the showiest shrub of the season on this occasion, its sage green neatness most profusely branched and covered with the white starry flowers that so exactly resemble one of the *Michaelmas Daisies*—is it *Aster ericoides*? *Cistus lusitanicus* is a lovely thing. I have always liked *C. florentinus* the best of the family as a rock shrub, but *C. lusitanicus* has even larger flowers of the same exquisitely clear white, with the same golden centre, and is a delightfully neat and dwarf bush, in a young state, as seen here. *Maianthemum Convallaria* is a very uncommon little plant, and has considerable charm. It is now a well-spread mass, on the shady stones, with leaves shorter, broader, and more wrinkled than those of a *Lily of the Valley*, otherwise recalling them, but closely clustered to the soil. Over these rise the neat spiky plumes of white flower, like miniature blooms of *Tiarella cordifolia*. *Cornus sanguinea variegata* in the grass bank is a pretty small bush, its green leaves sharply edged with cream. *Rubus japonica bicolor* reminds one in its tinting of *Vitis heterophylla* var. Its cream, pink, and pale green are pretty, but if the evidence of the very small shrubby plant here is to be taken it is not at all a strong grower, and therefore all the better for choice rockery purposes. There was a good planting of the rather weedy-growing *Erigeron philadelphicus* on a sunny

bank, where its pleasant—if rather insignificant—pink flowers looked pretty. It was good to see *Androsace lanuginosa* perfectly happy and running swiftly down a cleft between two big rocks above another silvery green crusting of the Spider-web sempervivum. A double pink *Dianthus* (labelled D. Marie Pare) was a pretty thing, of a charming shade of pale strawberry-cream, while on the way out a very well-grown large plant of *Ononis fruticosa* drew attention to its bright pink flowers and graceful leafage.

M. L. W.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Names of plants.—H. G. G.—*Hemanthus coccineus* (the Blood Flower).—Miss W.—*Twayblade* (*Listera ovata*).—W. G. C.—*Ulmus montana* var. *crispus*, natural order Urticaceae. This is a variety of the Wych Elm. It is not very common, and is not a quick grower. It would not make a very good shade tree.—Mrs. D.—This appears to be a species of *Myosotis*, but the flowers were so withered on arrival as to be quite unfit for determination. Perhaps M. de Vilmorin could give you the name.—Constant Reader.—*Cryptomeria japonica* var. *nana*.—C. E. F.—*Pittosporum Tobira*.—*Sierberna*.—*Allium siculum*.—Evelyn R. Reid.—1, Probably a species of *Centaurea*; please send again when in flower; 2, *Veronica spicata*; 3, *Symphitum asperum*; 4, *Hieracium* species.—Good fellow.—The big leaved *Veronica* is *V. speciosa* var., the small leaved *V. pinguifolia*, and the white leaved *V. lucana*. The other shrub is *Spiraea canescens*.—C. West.—1, *Dendrobium moschatum*; 2, *D. crystallinum*, an albino form which is not common; 3, *D. moschatum*.—R. Quarry.—1, *Saxifraga Geum elegans*; 2, *S. curvifolia*; 3, *Thymus asoricus*; 4, *Campanula muralis* (*portenschlagiana*); 5, *Corydalis capnoides* var.; 6, *Gypsophila prostrata*; 7, *Helleborus vulgare* var. (Sun Rose).—W. D.—*Hieracium aurantiacum*.

"Ampelopsis japonica" (H. Y. O.).—There is really no such plant as *Ampelopsis japonica*, though the name is very generally applied to the Japanese form of *Rhus Toxicodendron*, a very poisonous and most dangerous plant, which is in no way related to *Ampelopsis*. To add to the confusion this *Rhus* was a few years ago largely distributed by a firm of nurserymen as *Ampelopsis Hoggi*, and may be often seen bearing this latter name. The Japanese form of *Rhus Toxicodendron* differs in no way from its North American relative, and both are poisonous enough to merit the United States name of the Poison Oak or Poison Ivy. Fortunately the *Rhus* and the *Ampelopsis* can be readily distinguished from each other, for the *Rhus* has only three leaflets, which are not toothed, and are more rounded and less pointed than the *Ampelopsis*, while in this last the leaflets are five in number.

Cacti (G. B.).—No apparent fault can be found with the conditions under which your Cacti have been wintered, except that a temperature of 45° to 55° would have been better. Still, from your description they are undoubtedly in a bad way, but what brought it about it is impossible to say. Perhaps the structure in which they were wintered got even lower in temperature than that stated by you. Your only remedy is to shake them entirely clear of the old soil, when you will probably find very few roots. Then repot in clean, well-drained pots (not too large) in a compost of two parts good loam to one part of leaf-mould, and one of sand and pounded brick rubble combined. When potted the plants may be stood in that portion of the greenhouse where they are shaded from direct sunshine, syringed two or three times a day, and given enough water at the roots to keep the soil fairly moist, but not too wet. In this way root action will become gradually re-established if the plants are not too far gone, and in time they will recover their normal plumpness, when they may be fully exposed to the sun's rays. We were consulted last year with regard to a collection that had got into a bad way, and by following our advice, as detailed above, nearly the whole of them were restored to health and are now in good condition. Briefly, the cultivation of this class of Cacti may be summed up as follows: They flower, as a rule, in May or June, during which period they must be shaded from direct sunshine, as this causes the blooms to remain fresh longer than would be the case if fully exposed to the sun's rays. After the flowering season is over the plants that need repotting should be at once attended to, the most suitable compost being as above given. The plants need to be well supplied with water during the summer months when they are making their growth; indeed, if the roots are in good condition an occasional dose of weak liquid manure is beneficial at that period. Throughout the summer they may be kept in the sunny part of the greenhouse, or placed in a frame fully exposed to the sun,

the lights being put on during heavy rains and in cold, damp weather. By September they should be removed into the greenhouse (always in full sun), where they will pass the winter. During the winter enough water should be given to keep the soil slightly moist, but no more. With the return of spring, however, this must be increased.

Tropaeolum polyphyllum diseased (T. A.).—We believe the failure generally is due to some fungoid attack, though in the example before us no fungus could be traced at the moment. If on noticing a similar instance you would send the perfectly fresh example in a box in slightly damp moss we will endeavour to investigate the matter.

Weevil on Peach and Lapagerias (A. J. W.). It is not often that Peach trees and *Lapageria* plants are infested by weevils. The best and only effective cure for them is to shake the trees well, when many will drop off. These must be collected and burned, and the trees and plants carefully examined afterwards, and every insect found picked and destroyed. By careful and patient attention a hand picking the weevils may be entirely eradicated. No insecticide we know of will kill them without at the same time severely injuring the foliage. Ordinary strength fumigation has no effect upon them.

Growing Tree Carnations (JOHN WORTINGTON). It is unfortunate that you have not given the size of plant or even the pot, as this would have been a clue as to whether the plants are young or from freshly propagated stock, or what appears more likely by your note plants that have finished the winter flowering and now are pushing secondary or useless buds. In any case the flower buds must be removed, and sufficiently low down that only growth buds reappear afterwards. As you wish only for winter flowers you had best read carefully the article on "Tree Carnations" which will soon be published in our columns, and you may possibly obtain some information therefrom. All we can now say from the information you afford us is that Tree Carnations intended for winter flowering should now be strong bushy plants with some half dozen side shoots in 5-inch pots. Any time in July these plants should be transferred to 6-inch or even larger pots, depending upon their kind. As you do not name the kinds you have, we cannot assist you individually in this respect. We may say this, however, that to obtain flowers in winter it is essential that the flowering spikes be pushing towards the end of September. If this is ensured the flower is well advanced before the arrival of the short, unless, and, worst of all for the winter Carnations, foggy days, after which good flowers may be relied upon.

Siberian Crab-twigs injured (H. D. R.).—The late frosts, both last year and this, have been responsible for damaging the leaves of the Siberian Crab in many places, and this is probably the matter with yours, particularly as the growth appears healthy. The specimen of Grass sent was not sufficient for correct identification. If you were to bury Carrots or Potatoes in your ground and examine them every other day you would in time exterminate your wireworms. Another plan is to water the ground with a strong solution of mustard and water. This, however, cannot be relied on to the same extent as the other way. The last bright yellow Rose for outdoors is the Austrian Briar (*Rosa lutea*), or, failing this, *Rosa Harrisoni*.

Lilium candidum bulbs failing (H. B.).—If bulbs are attacked by that terrible Lily disease which has played such havoc with the culture of *Lilium candidum* throughout the country. Numerous remedies have been tried, but in the majority of cases success has only been partial. It is caused by a fungus, *Botrytis cinerea*, and the cold wet weather has proved so favourable to the spread of this pest that we are receiving complaints from all quarters. Mr. G. Massee, the authority on fungi at Kew, recommends spraying with a solution consisting of 2oz. of potassium sulphide dissolved in three gallons of water. The soil should be thoroughly drenched at the same time with a solution double the strength.

Dwarf Caladiums (BARONESS VON S.).—We do not know any smaller *Caladium* than that of which you send the leaf (*Argyrites*), but, of course, even in its case the treatment given will have some effect on the size obtained. A second small-growing form is *minus erubescens*, in which the leaf has a bright red centre with an edging of green. These two varieties are grown in large numbers by some of the nurserymen around London, they are in great demand for various decorative purposes, such as the edging of groups and for table decoration. Both these *Caladiums* are naturally of a tufted habit, that is to say, each plant pushes up at least two or three tufts or crowns of leaves, and often many more. A convenient way of growing them is to put them in pots 3 inches or at most 4 inches in diameter, in a compost of equal parts of loam and leaf-mould, with a liberal sprinkling of sand. The month of February is a good time to pot these *Caladiums*, and if placed in a light position in the cool part of the stove they will come on gradually, and be valuable for decorative purposes in late spring and summer. Plunged in a gentle bottom heat in the warmest part of the stove they will come on quicker, but they will not stand exposure so well as those which have been grown cooler. You can do nothing with water at this season except to keep supplied with water, as the growth is complete, and in autumn they will go to rest. Keep dry during the winter, and in February shake out and repot.

GARDENING APPOINTMENT.

WE understand that Mr. E. Scaplehorn, who for the past nine years has been in charge of the alpine and hardy plant department of Messrs. Jackman and Son, Woking, is about taking over a similar charge for Messrs. William Cuttiss and Sons, Highgate, who are making a feature of this department. Mr. Scaplehorn enters upon his new duties about the middle of July.

* * * The Yearly Subscription to THE GARDEN is: *Income* 15s.; *Foreign*, 17s. 6d.

THE GARDEN

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[JULY 11, 1903.]

THE NEGLECT OF THE VERBENA.

VERBENA "WARLEY," the brilliant scarlet raised by Miss Willmott and shown at the Royal Horticultural Society's meeting on Tuesday, recalls the time when this flower gave colour and beauty to many an English garden and park, and "Warley" is just the type of flower to bring the Verbena once again into popularity. Another variety, Ellen Willmott, also raised by Miss Willmott, is already an established favourite, and we hope that more varieties of equal vigour and of as fine colouring are yet in store. There must also be many varieties of the Verbena in English nurseries which are better than some later developments, that are larger in every way, and have conspicuous white eyes. These, though they may have a bright effect in the single bloom, tend to a muddled look in the mass, so that a bed or patch of them fails to have the brilliant effect of the smaller blooms without the eye. The varieties Miss Willmott is raising are purely self-coloured and free from any "spottiness," and for this reason we welcome them as good garden flowers. A few years ago we asked Messrs. Keynes to tell us the reason why so fine a flower as the Verbena should be so neglected, and their reply should be interesting at the present moment. It is as follows:

"We believe that the one thing which caused the Verbena to be neglected was the extreme forcing to which the plants were in many places subjected in their propagation—and the failure which followed, as a matter of course. The practice was, and probably is still, for cuttings from old stools to be put in during the months of March and April, and kept at a very high temperature for about a week, by which time they were rooted. These were sold as rooted cuttings at a small figure, without any hardening off or any of the careful treatment such tender subjects should receive. This resulted in a weakened constitution, and insect attacks followed. The fungoid disease generally known as 'black spot' came after this, and so injured many stocks that they were given up in despair.

"Those who are fond of Verbenas would find their culture quite easy if stools were wintered in cold frames with a protection in very severe weather so that frost does not exceed 5°. Cuttings from these, rooted slowly in March in a manure frame, hardened off and kept cool, produce sturdy, healthy plants, certain to do well planted out in May.

"Our own practice is to root cuttings in August; these are kept in cold frames or in a

cold house devoted exclusively to them through the winter. They are our 'stock plants,' supplied principally to other nurserymen in January and February, and also from which we get our own cuttings for rooting in February and March. The young plants which these cuttings produce are hardened off and stood out in the open with simply a sheep hurdle over them in April."

EDITOR'S TABLE.

We invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London.

Buddleia Colvillei in Norfolk.

Mr. W. Riddell, gardener to Lord Walsingham, Merton Hall, Watton, Norfolk, sends two strong flowering shoots of this interesting species. Mr. Riddell writes: "This is the first time it has bloomed here in the open, though planted four years ago and given slight protection during winter until last year, when it was left exposed; 17° of frost were registered during last winter." The flowers are of warm rose-purple colouring.

Herbaceous Calceolarias from Scotland.

Messrs. Wallace and Mills, Benstone Nursery, Johnstone, send us a boxful of herbaceous Calceolarias cut from plants grown by Mr. Brown, gardener, Newfield, Johnstone, N.B. Messrs. Wallace and Mills write that the wealth of bloom is practically over now, but the quality can easily be seen from the side shoots sent, a remark with which we fully agree. Some of the individual flowers measured 2½ inches to 3 inches across, while the plants, we are told, were from 2 feet to 3 feet through. Such exceptionally good culture as was denoted by the flowering shoots sent deserves to be recorded. Messrs. Wallace and Mills kindly send the cultural notes published below. Mr. Arthur Sutton, whose long and wide experience renders him an excellent judge of these flowers, pronounced those grown by Mr. Brown to be some of the best he had ever seen.

The seed should be sown in July in a pan of light soil, which should be placed in a cold frame with a north exposure if possible, if not the frame should be heavily shaded. The seedlings should be pricked off and potted on when necessary, taking care not to check them by allowing the roots to become pot-bound. The best compost to use consists of light loam and leaf-soil in about equal proportions, with a good quantity of sand. When potting the plants do not make the compost too firm. One of the secrets of good culture is to grow the plants quite cool without any artificial heat whatever; in fact, they should never be grown in anything but a cold frame. During severe weather the frames should be matted and the

plants will take no harm. One of the best collections in the west of Scotland is grown in cold frames, the plants having no other protection whatever. The plants must never get dry at the roots. Plants grown under such cool treatment are seldom or never attacked with fly. When showing their flower heads the side shoots should be staked out, and in this way a well-grown plant can be had 2 feet through and a mass of flowers.—G. M., Benstone.

Gloriosa Superba.

Mr. Eden Phillpotts writes from Torquay, South Devon: "Please honour me by accepting a few blooms of *Gloriosa superba*. My plant has been wonderful this year. I also flowered *Gloriosa Carsoni*, Baker. The tuber came from the Zambesi basin, and was sent to me by a brother wandering there. I have had it for two years, and in May it flowered (one blossom) for the first time. I learn it is rare. The flower is very beautiful, purple, fringed with brilliant yellow. I hope it may be my pleasure to send you some next year."

Mr. Phillpotts sent some excellent blooms of the brilliantly-coloured *Gloriosa superba*; we look forward with pleasure to seeing G. Carsoni.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

July 14.—Cambridge Flower Show.
July 15.—National Rose Society's Show at Glasgow; Ancient Society of York Florists'; Ipswich Summer Exhibition; National Sweet Pea Society's Exhibition (two days) at Earl's Court; Formby Rose Show; Thornton Heath Rose Show; Nottingham Horticultural Exhibition (two days).
July 16.—Weybridge Summer Show; excursion of Horticultural Club to Windsor and Frogmore.
July 21.—Royal Horticultural Society's Committees meet at noon; National Carnation and Picotee Exhibition; Tibshelf Rose Show.

Wolverhampton Floral Fete.—We are sorry to hear that a severe storm raged at Wolverhampton on Tuesday, the opening day of this important show. Owing to this we did not receive the report until too late for insertion in the present issue. It will, however, appear next week. We hope the society has suffered no financial loss through the stormy weather on the first day. The judging was still in progress late in the afternoon owing to the bad weather.

Flowers for butterflies.—Another flower which I have noticed as being attractive to Red Admirals is the Scabious. I remember watching numbers of these beautiful butterflies flitting about a row of dark Scabious in my garden in Suffolk, two or three of them being often on one flower head.—R. LYELL, Dorking.

Pea Veitch's Acme.—On page 435 you have a note from Mr. Wythes recommending this Pea. I can endorse all that your correspondent there says in its favour. I have not grown it before, but now have a row about 12 yards long from seed sown on March 16, and from this we gathered on June 28. The seed was sown between Broccoli, and these were planted on land that had Strawberries on last year. All the preparation the land had for the Peas was simply breaking

it up sufficiently deep to draw the drill to sow the seeds in. The ground has not been dug for four years; notwithstanding this, I have never had a better row of Early Peas, and owing to the moist season they have grown 6 feet high. The haulms are literally covered with pods and very low down. I had a dish for dinner on July 2, and have never seen Peas of a deeper green colour when cooked. It is much in advance of the named early varieties, and earlier with me than Gradus, which was sown three weeks earlier than Acme, and was a week later. Added to this, Gradus suffered considerably from the severe cold in April, while Acme was untouched.

—J. CROOK.

A forgotten Rose.—I have read many articles lately on decorative Roses, and am much surprised to find Helene seldom if ever mentioned. I think it is equal to any of its class. It is not quite single. Its flowers are in clusters, and are pale mauvy pink, with silvery white under petals. It also has the great advantage of being an exceedingly strong grower. Last autumn I had three plants, and they are covered with bloom. The plants are now 7 feet or 8 feet high, and very bushy, blooming almost down to the ground. I have one on a west wall mixing itself with a Crimson Rambler—a beautiful combination—one on an arch, and one on a pergola. All are doing equally well. —HERBERT NASH, *Winash, Bridlington, near Bristol.*

Cambridge botanic garden syndicate.—In the annual report to the Senate we read: The artemesian well sanctioned by the Senate has been sunk. The green sand was struck at a depth of 169 feet, and water now stands at a depth of about 21 feet from the surface of the ground. The tower, storage-tank, and other structures are in course of erection, and it is expected that the whole of the work will be shortly completed. During the year 1902, 1,213 plants, 1,174 bulbs, and 3,220 packets of seeds have been received. Contributions have been received from various botanic gardens and a return has been made to most of them, 2,077 plants and 3,959 packets of seeds having been distributed. Special thanks are due to Messrs. James Backhouse and Sons, of York, for trees and herbaceous plants; to Mr. Amos Perry, of Winchmore Hill, for choice hardy plants and bulbs; and to Messrs. James Veitch and Sons, of Chelsea, for Chinese, Japanese, and other plants. Wardian cases have been exchanged with the Calcutta Botanic Garden; all the plants with two exceptions sent in the case from Cambridge reached Calcutta in a healthy condition. Considerable assistance has been given by the Cambridge Garden towards the formation of collections in the new Botanic Garden, Bronx Park, New York. Among new plants that have flowered, and have been or will be published from Cambridge material are *Mystacidium* sp. nov., received from Mr. Cyril Crossland, of Clare College, and collected by him in British East Africa; *Sauromatum* sp. nov.; *Streptocarpus Armitagei*; *Colchicum* sp. aff. *montanum* (to be figured in the *Botanical Magazine*), and *Gerbera* Brilliant, a cross between *G. Jamesoni* and *G. Sir Michael*, raised by the Curator and finer than either parent in size and colour. Other new plants that have flowered are *Pittosporum Fairchildi*, an ally of *P. crassifolium*; *Campanula sulphurea*, exceptional in the genus in the colour of the flowers; *Arisaema mirabile*, probably a variety of *A. speciosum*; *Stapelia luxurians*, an interesting example of carrion flowers, and various hybrid *Gerberas* raised by the Curator. The Curator's travelling allowance has been spent in a series of visits, the direction of which was chiefly determined by a special invitation from Mr. H. J. Elwes, F.R.S., of Coleborne, Gloucestershire. The Curator also visited Dropmore, celebrated for its Coniferae; the establishment of Messrs. Sutton and Sons, Reading; Mr. A. C. Bartholomew's garden, Reading; and the Botanic Garden at Oxford. By Mr. Elwes' introduction a visit was made to Mr. S. F. Moore, of Bourton-on-the-Water, an enthusiastic cultivator of Orchids; and returning, a call was made at Messrs. Cypher and Sons' Nursery at Cheltenham, the Victoria Park, Bath, followed by visits to Canon Ellacombe at Bitton, Ware's nursery at

Feltham, Mr. Worsley at Isleworth, Mr. Frank Smart's garden at Tunbridge Wells, Cannell's nursery at Swanley, and Low's nursery at Enfield. Several days were also spent in the garden and herbarium at Kew.

Stock Sutton's All the Year Round.—This beautiful white dwarf double Stock is well worth noting for its free flowering and compact growth. For pot culture, in my opinion, it far excels the East Lothian, being much fuller, and in addition its purity, clove scent, and perpetual flowering make it one of the best garden and cool house plants we have. I recently saw it in the Royal Horticultural Society's Gardens, Chiswick, bedded out, and it is a most desirable variety, the plants flowering freely throughout the summer and autumn. It is also excellent for sowing at this season for pot culture in the early spring months, and sown for this purpose the plants flower profusely over a long season. The leaves are not unlike those of a Wall-flower; the plant is very hardy, dwarf, and vigorous, and does not when given pot culture exceed 1 foot in height. This new Stock a few seasons ago received an award of merit from the Royal Horticultural Society, and since that date has increased in favour with growers. —G. WYTHES.

Pink Samuel Barlow.—I do not know who is the raiser of this, but should infer from the name it bears that it is of Lancashire origin. It is of dwarf, compact growth, and produces grass freely. The flowers are white, with a very dark, almost black, band round the eye; of good size, full, but much fimbriated; the flowers stand erect, which is a quality wanting in many Pinks. It may be noted as an excellent variety for cultivation in pots, and also for the border. —R. D.

Rondeletia strigosa.—This near ally of the *Bouvardias* is a delightful intermediate house shrub when flowering so freely as it is in the T range at Kew. It forms a freely-branched little bush, clothed with shining green leaves, while the flowers, in shape like those of a *Bouvardia*, are bright crimson, with a yellow centre, and in neat, compact clusters. It is a native of Guatemala and is quite a rare plant in gardens, though deserving extended cultivation. Apart from its own intrinsic worth it might, in the hands of the hybridist, mate with some of the *Bouvardias* and develop a new race. —T.

Grevillea Banksi Forsteri.—One of the most interesting of the many beautiful plants now flowering in the temperate house at Kew is this rare *Grevillea*. It is one of the large-growing members of the genus, attaining in its Australian home almost the dimensions of a small tree. The specimen referred to is in a pot, and this amount of restriction has probably induced the formation of flower-buds. The plant is rather upright in growth and clothed with pinnate leaves, in vigorous examples, nearly a foot long and more than half as much in width, the divisions being about a quarter of an inch wide. When young the leaves are quite silvery on the under sides and to a lesser extent above, but when mature the upper surface loses this silvery character, and the under side is less so than when young. The flowers, which are borne in terminal, cone-shaped racemes, are bright red, almost scarlet. In common with most members of the genus the long style is conspicuous, being as bright as the rest of the flower. —H. P.

Hydrangea Hortensis or hortensis.—The specific name of the common *Hydrangea* is a puzzle, and which of the above two to use I really do not know. The matter appears to me to stand thus: In my younger days it was always *Hydrangea hortensis*, then a decade or a little more ago the specific name of *Hortensis* was occasionally used. In the pages of *THE GARDEN*, Mr. Bean of Kew, called attention to the fact that the name *Hortensis* was erroneously given to it, for the plant was named in honour of Queen Hortense, hence the word should be *Hortensis*, and as such it has been used in *THE GARDEN* ever since, the last time as recently as June 27. This nomenclature is followed in the first "Kew Hand List" of trees and shrubs, published in 1894, and after that there seemed no doubt as to its correctness. Judge,

therefore, my surprise on referring to the list published last autumn to find that the old system of nomenclature is adopted, and the plant is once again *Hydrangea hortensis*. I should have regarded this as a slip, but for the fact that the specific name of *Hortensis* stands first in the list of synonyms. —H. P.

Technical education as applied to horticulture.—The air is full of technical education just now. A remarkable letter was recently addressed to the London County Council by Lord Rosebery, and this important subject is emphasised by some utterances of Mr. Chamberlain at the University at Birmingham on the 4th inst. Mr. Chamberlain, Chancellor of the University, said they were spending £300,000 in building a new university and laying out three great departments for engineering, mining, and metallurgy, further remarking that the new Birmingham University would, in some of its features, devote itself to the special needs of the district. He warned Lord Rosebery that the space offered for the new institution at South Kensington by the Royal Commissioners of the Exhibition of 1851, was altogether too small. At any rate, Mr. Chamberlain zealously advocates free trade in education! The allusion to the Royal Commissioners leads up to the horticultural aspect of this vital question—vital because it so seriously affects us as a nation when we look at what our Continental neighbours are doing. There is now a noble opportunity for the Royal Commissioners to make some restitution and to deal in generous terms with the art of horticulture by giving increased space at South Kensington, so that technical and horticultural education may be included in the curriculum of a scheme which, says the vice-chairman of the London County Council will be dealt with in a broad and statesmanlike way. How far we are behind France, where, throughout the country, practical gardening is taught in the primary and elementary schools. From returns issued some years ago there were then some 28,000 of such schools, each of which has a garden attached to it, and under the care of a master capable of imparting a knowledge of the first principles of gardening practice. It was then decided that the number of such gardens should be largely increased; further that no one should be appointed master of an elementary school unless he could prove himself to be capable of giving practical instruction in the culture of the soil. —Quo.

The common Woodbine.—At the present time nothing is more beautiful in our grounds than a large bush of this sweet-smelling shrub. During the past four or five years it has taken possession of an old Holly growing on a bank and close to where the Honeysuckle had occupied a place for years. Owing, however, to the hedge being clipped every previous year it could not extend. It has covered the top of the Holly for many feet, and is a sheet of bloom. The yellow flowers make a beautiful contrast to the dark Holly leaves. This is the kind of planting we want more of in many of our large private pleasure grounds instead of the everlasting Laurels, Yews, &c. Nor would such a piece of colour (common as it may be) be despised in some of our public parks and gardens.

Rhododendron Pink Pearl.—Late-flowering *Rhododendrons* have flowered well this year, no doubt this is due to their strong growth last year. Those who visited the Temple show probably noticed the Pink Pearl *Rhododendron*. All the forms in the group in which this was shown were good, but this eclipsed them all for size of truss, colour, and bold effect. It is somewhat new, and must be scarce for a few years, but when it can be obtained at a reasonable price no doubt we shall see it in all good collections. Evidently it is a good grower and a fitting companion for such varieties as *Kate Waterer*, *Mrs. J. Clutton*, *R. S. Field*, *James Marshal Brooks*, and many others. When residing for many years in North Hants I often paid a visit to the Bagshot Nursery, especially when the *Rhododendrons* were in bloom, and well I remember the fine trusses and colour of *Kate Waterer* when first introduced. —J. CROOK, *Chard, Somerset.*

Beauty of *Luzula nivea*.—Mr. Hartland's interesting note in your issue of June 20 upon the subject of *Luzula sylvatica* suggests an opportunity of singing the praises of another plant very rarely seen in English gardens—*Luzula nivea*, so common in many parts of Switzerland and Northern Italy. It is a lovely plant and seems easy to establish, some little bits I brought a few years ago from Monte Generoso having grown into big clumps. It lasts a very long time in water, and I cannot help thinking it would prove a fine subject for market gardeners.—CHARLES PRENTIS, *Milton, Sittingbourne*.

Flowers to attract butterflies.—I consider there are no flowers which attract the Red Admirals—in fact, all butterflies—so much as the Scabious. Mine is essentially an autumn garden, so I always grow quantities of Scabious, and to see the various butterflies playing on the flowers during a sunny day in late August and early September is truly wonderful, for they seem as if they cannot leave them.—J. E. LEEDAM, *The Leasowes, Hilderstone, near Stone, Staffs.*

***Cardamine rotundifolia*.**—This is a charming spring-flowering plant, pure white, very early and free. The late Mr. William Ingram used it in his early spring garden at Belvoir, and praised it highly. He was much devoted to selecting for early blooming, and in this way gained in precocity—educating his flowers as he termed it—and some of them appeared to be quite docile in his hands, among them the *Cardamine*. The double form of our common native Cuckoo Flower well deserves a place in the spring garden.—R. D.

Dwarf bedding *Nasturtiums*.—Undoubtedly the best of the dark-coloured varieties is Mrs. Sanderson. This is one of the true dwarf compactum type, with dark maroon flowers thrown well above the foliage; it forms a dense, compact growth, crowned with blossoms. It seeds very sparingly, which is helpful to continuity of bloom. It should be propagated from cuttings. This has pale green foliage. Empress of India, when represented by a carefully selected stock raised from seeds, such as I saw in the seed trial-grounds of Messrs. W. W. Johnson and Son, at Boston, two years ago, is of compact growth, with dark shining green foliage, the flowers of a rich deep crimson, thrown well above the leaves. What is to be avoided in the case of dwarf *Nasturtiums* is the kind of plant which buries its flowers amid its leaves, and so presents a very confused appearance to the eye. This defect often arises from lack of care in selecting seed parents and taking the seed indiscriminately from any plants, however objectionable their habit of growth. Mrs. Clibran, yellow, appears to be wanting in constitution as far as my own experience goes. When it does well it has the true compactum habit, and blooms very freely. A variety known as Luteum Improved is also a good yellow-flowered bedder, and is found to come quite true from seeds. The best dwarf scarlet compactum is Bedford Rival, which has all the good qualities of a dwarf bedding *Tropaeolum*. The varieties of the compactum race should not be confounded with the ordinary Tom Thumb *Nasturtiums*, as they produce flowers of much better form, are more compact in growth, and, as they seed very sparingly, they are much more continuous in bloom. It is only by careful selection of the plants as seed-parents that the strain can be kept up to a high standard.—R. D.

THE TULIPAS.

(Continued from page 442, Vol. LXIII.)

TULIPA GREIGI (Regel).—A massive and sturdy Tulip from Turkestan. The leaves are broad, very stout, veined and flecked with chocolate; flowers scarlet, of exceptionally fine form, the outer petals pointed, the inner petals very broad, rounded, reflexing when expanded, basal colouring black or brown, with or without a yellow dividing band; a gorgeous Tulip, and may be grown well in any light soil, but must be lifted to ripen for at least three months. A large number of forms have received distinct

names, but as the colours are, unfortunately, not at all constant, it is not proposed to make use of them here. The plant varies greatly from seeds, and collected batches contain several forms distinct from the type. In south European countries the plant sports into an infinity of forms, many of which have reached England, but they have not succeeded, and the importer, unless he is very fortunate, has to fight a destructive fungus they leave behind them as a legacy in recognition of his efforts in removing them from a climate where they did well to our own, where they fared badly. *Aurea* is the only one that can be depended upon.

T. Hageri (Heldreich) is a brick-red flowered species of medium size, the basal colouring of which is in the form of a large, badly defined, black and brown blotch. It can only be described as a wretchedly poor flower, lacking refinement in every detail.

Var. nitens (Wallace), a form from the westernmost Cilician Taurus, has many striking qualities. The leaves resemble those of *T. sylvestris*. The flower spans 3 inches, coloured a flame orange-red, flushed with grey and bronze externally, and the centre of the flower is furnished with a small vivid black blotch. Its flowers resemble the native species in shape, and it is just as easy to grow. Any soil or situation suits it, and one can recommend it as a very attractive little plant. In flower it most resembles a patch of the scarlet Windflower.

T. kaufmanniana (Regel).—A Turkestan species of recent introduction, and one of the most charming Tulips possible to obtain. It is the first of its race to open, often braving a severe spell of winter during February quite unharmed. It is a dwarf plant 12 inches high as a maximum, the flowers are cone-shaped when closed, flushed with red externally, coloured cream internally, silvery near the margins, base deep orange, often with a zone of intense vermillion as a dividing colour, but frequently without it or in a modified form and degree. It is a capital rockery plant, invaluable when grown in pots for the cool alpine house, where it could reach its finest development whatever the weather. It likes a hard, poor subsoil, preferably little bits of rock, and needs a good summer's baking to ripen. It is easily raised from seeds, but home grown seedlings do not show the rich external and internal reddish colouring so characteristic of the native grown plant. Though not an



HYBRID TEA ROSE CAROLINE TESTOUT (REDUCED).

(Shown on many stands at the recent exhibition in the Temple Gardens.)

expensive bulb it is still rare enough to be welcomed with enthusiasm whenever seen in good condition.

T. kolpakowskyana (Regel).—The names Regel gave to his plants were probably more familiar to his ears than to ours, certainly he did not err on the side of brevity in christening plants. This Tulip is a very pretty species, with lanceolate ascending leaves 6 inches to 12 inches long. The flower-buds are pointed, contracted near the middle, and 3 inches long as an average. The petals are coloured yellow, varying in tint, flushed externally with red or scarlet, the medium line being green or grey. They are generally equal in size. A pretty Tulip, flowering in April and May, valued for its graceful habit and charming flowers. It requires the treatment recommended for *T. kaufmanniana*.

T. Korolkowi is a very small and slender growing species, with crimson flowers furnished with minute basal spots. In size the flowers are no larger than a Hazel nut, but they are very brightly coloured and exceedingly interesting.

Var. bicolor is a very bright coloured little plant. It has very narrow grass-like leaves, slender stems a span high, bearing cone-shaped flowers, the apical half of which are coloured golden-yellow, the basal half vermillion. The colouring of this Tulip exactly resembles the old garden variety Keizer's Kroon, but its size does not exceed that of a Filbert nut. It is suitable only for rockery planting or for pot

culture. It flowers in March, and hails from Asia Minor.

T. lanata (Regel), another small flowered Asia Minor species, has broad glaucous leaves and cone-shaped flowers with flat petals, coloured a rich scarlet down to the base. A very neat and beautiful little plant under 8 inches high, but very hardy, and possessing a strong constitution. It thrives well on a rockery, and appears at its best in a tuft of low-growing herbage that would support its slender stems. It need not be lifted to ripen, but the subsoil should be hard or it will make "dropper" bulbs, thrusting them a foot deep in a loose soil. It flowers in May.

T. Leichlini (Regel), a native of Kashmir, proves extremely difficult to grow and flower well, and one has doubts as to its hardiness in an English climate. It has slender stems, deeply channelled leaves, and cone-shaped flowers, which reflex when expanded, coloured white internally, coral-red externally. It has a general resemblance to *T. clusiana* in the shape of its flowers. The plant requires further study before details of its cultivation can be given, and it is too rare to admit of ample experiment.

T. limifolia (Regel), also from Asia Minor, has lax narrow leaves and dazzling scarlet flowers that are contracted near the middle and self coloured throughout. The petals average $1\frac{1}{2}$ inches to 2 inches in length, with pointed tips, and they expand during very bright sunshine only. It is very close, botanically, to *T. lanata* and *T. wilsoniana*, and may be similarly grown.

T. Lownei.—This is a native of Cilicia, and a sturdy, dwarf, Crocus-like species, with very small bulbs, prostrate twisted lineal leaves, and pink or pale rose flowers coloured greenish externally, the inner petals being much broader, and keeled with bronze; basal colouring clear yellow. The flowers much resemble those of Crocus of the reticulata type; they span from $2\frac{1}{2}$ inches to 3 inches across, and expand only during bright sunshine. A pretty rockery plant, charming in its quaint habit and pretty rose colouring; it is best adapted for rockery cultivation, but may be well grown in pots for the cool alpine house. It flowers in April, and there are two forms in cultivation varying in the degree of colouring only.

GEO. B. MALLETT.

(To be continued.)

THE FLOWER GARDEN.

THE CARNATION AS A MARKET FLOWER.

TO those intimately connected with flower culture for market the popularity of the Carnation is well known, and that it should have become a powerful competitor with the Rose for the premier position is not at all surprising. When we hear of as many as 60,000 plants propagated and cultivated in pots in one establishment for providing cuttings alone, and these figures are exclusive of some thousands of Malmaisons, we have to acknowledge that the Carnation has gained a position of great importance in the market; and the market accurately indicates popular taste and appreciation or otherwise of any particular flower that is brought before it.

The methods of cultivation adopted by the market grower differ but slightly from those practised in private establishments. The market grower prefers always to keep all his

plants under glass, thus exposing them to less risk by disease and insect pests than when they are placed out of doors, say, from the middle of June to the middle of September. One thing at least is certain, that large numbers of plants are more easily and more effectually dressed with insecticide when under glass than they can be when in the open air exposed to rains and storms. Judging by the healthy condition of plants seen in Messrs. Beckwith's famous nursery at Hoddesden in the early part of June, in various stages of growth—from those being transferred from 3-inch pots to 6-inch pots to those laden with a magnificent crop of flowers—he would indeed be a keen observer who could point out a weak point in their condition. In what respect the soil used may differ from that available to private growers I am not able to say, but the additions to the loam and leaf-soil, which form the staple of the compost, are the same as used by gardeners in private places. Yet I do not hesitate to say that the market grower, by the uniform condition of his plants and by the regularly large crop of flowers produced, shows to better advantage.

The selection of varieties is a matter of great importance; many points have to be considered. Colour is decided by the demand, and on this point I notice that pink of various shades claims the majority of admirers, as by far the greater number of the plants grown were of one or another shade of pink. Scarlet or red probably comes next, but is only a poor second. Yellow appears to be in good demand, and here is the best opening for the raiser of new varieties, as there is a decided lack of those of a yellow shade possessing the various characteristics required by the market. Whites are not largely grown, probably for a similar reason. Self colours only appear to be in demand at the present time. Size is a point of considerable importance, as very small flowers are practically useless in the market, and as the grower has a great many expenses to meet he must study what brings grist to the mill. In this respect he finds that flowers of medium size are the best, provided they are of good shape and substance, possessing broad, smooth-edged petals, and are well filled up in the middle, so that when the bloom is fully expanded it does not present a semi-double appearance, and that the outer or guard petals do not unduly droop. These little points all contribute to the lasting qualities of the flower, and what is of equal importance is a good stout stem that, when cut from 18 inches to 2 feet in length, will support the flower in an almost upright position without the assistance of wire, which is always so objectionable in floral arrangements. A flower such as here described is never to be found with a split calyx, therefore what are termed pod-busters are discarded as soon as discovered. Mere size, whatever its colour may be, finds no admirers in the market. A few of the popular varieties are noted below, but it must not be imagined that the grower for market ties himself down with any prejudiced ideas that he has already got everything that is good and worth having. On the contrary, he not only tries every new variety as it comes out, but makes special arrangements with the large Continental raisers to have all their new sorts submitted to him for trial, and in this way gets first hold of every new suitable variety.

Day Dream is a medium-sized bright pink flower of good form and substance; the plant is a free grower and bloomer. Renown, of a salmon shade of pink, is a very profuse bloomer and of good constitution. The guard petals droop a little, and are also a lighter

tint than the other parts of the flower; this is one of the very best for cutting from November to March, and a most reliable variety. Mme. Melba is of a darker shade of pink than either of the preceding varieties, and is reliable for market work in winter and spring; it has a long, stout stem. If the quantity grown is proof of its excellence, Royalty may well claim premier position among Carnations; the flower is of a pleasing deep shade of rosy pink, larger than any of the above varieties. The plant is vigorous, producing an abundance of "grass," very free flowering, and its flowers are produced on stout, strong stems from 3 feet to 4 feet high. They can be cut 2 feet or more in length. This is a flower that lasts long when cut, and is quite the favourite. Dawn is esteemed mostly for its colour, which comes closely to the old Malmaison. Among red or scarlet Sunbeam seems to be the most popular variety. It is a free grower, of good constitution, and a very useful winter flower. Flora Hill and White Cloud are the whites most in favour at the present time for winter and early spring. Flora Hill has a serrated guard petal, and is slightly the larger flower. White Cloud has smooth petals, and is a profuse bloomer. La Grandesse is a newer candidate for popular favour, and by some growers is considered to possess distinct merit; it is pure white and large. The plant, however, appears to lack vigour and constitution. It should not be placed in anything larger than a $4\frac{1}{2}$ -inch pot the first year; in constitution this reminds me of Empress of Germany, which has practically gone out of cultivation. Of yellows Cecilia is most appreciated at the present time, although it is not considered a good winter flower. Duchess Consuelo, sent out by Messrs. Dicksons, of Chester, is still held in high esteem for early spring; but in the hands of some growers it is found a little difficult to manage.

J. JACQUES.

TREES AND SHRUBS.

SOME ORNAMENTAL TREES.

ACER PSEUDO-PLATANUS ALBO-VARIEGATUM.

AN elegant tree is the above, and in spring, when the foliage is fresh, its colours are especially beautiful, and this is the case even with trees growing upon heavy soil, not usually considered the best to promote bright hues in variegated foliage. There is a good pyramidal-shaped tree of this variety some 40 feet in height growing in the pleasure grounds here, and when it is viewed either from a distance or near at hand its appearance is very pleasing, while an undergrowth of Portugal Laurel and some trees of Copper Beech hard by make its colours appear still more distinct and beautiful. For park planting this tree is particularly well suited, and groups of it associated with other trees would afford a rare and attractive feature.

TILIA PETIOLARIS PENDULA.—This exceedingly beautiful Lime has several synonyms, including *argentea pendula*, *alba pendula*, and *americana pendula*. It is, perhaps, the most handsome of the Limes, but nevertheless it is not often met with. There is a specimen here upwards of 70 feet in height, and being upon a lawn it has had ample opportunities to develop. It has a spreading head as compared with *T. europæa*, and, unlike that species, it does not attain a pyramidal form. Its pendulous habit causes its lower branches to trail upon the ground; its beauty is in a great degree enhanced by its fine foliage, which is comparatively large and thick, dark green upon the upper surface, and of satiny silver beneath. This species usually

blossoms very freely immediately after *T. europæa* is over, and its flowers are larger than are those of the latter, deeper yellow in colour, and more powerfully scented. Its flowers are a great attraction to bees, which visit them in vast numbers. The tree alluded to is worked upon a common Lime tree stock.

FRAXINUS ORNUS (Manna Ash).—The singular beauty and uncommon appearance of this tree ought to ensure its being commonly planted, and yet specimens of it appear to be rare and the tree comparatively little known. The best one that I have seen is at Pontypool Park. It is growing with a grand lot of American shrubs and coniferous trees, where in June it freely produces beautiful greenish white peduncles of blossoms, which make an unique display. The tree has an elevated, though sheltered, position, and is 50 feet or more in height. It would be interesting to know if this tree blossoms in a young state, and if not at what age it may be depended upon to produce flowers. Mr. Lockyer, who has charge of the Pontypool Park Gardens, tells me that the specimen there blossoms freely each year, but it was almost as large when he took charge of it as it is now.

THOMAS COOMBER.

The Hendre Gardens, Monmouth.

THE FRUIT GARDEN.

THE LOGAN AND THE WINEBERRY.

HOW different these two plants are as regards hardiness. The first named is, without doubt, a most useful fruit on account of its vigour and free cropping. Of course they do not both come from the same part of the world, the Loganberry being American, and the Wineberry a more tender plant from Japan. This year our plants of the Wineberry are so crippled by frost that they present a sorry spectacle at the present moment, and one's only hope is that plenty of new growths will come from the base for another year. Some of the Raspberries suffered almost as much. This crop, I should think, will be a scarce one in this part of the country. On the other hand, the Loganberry is bearing grand crops, and did not suffer in the least by the severe May frosts, thus showing its value for exposed places. In the northern part of the kingdom this fruit thrives well, and will become a standard fruit for preserving and cooking purposes, as it bears so well, even in adverse seasons. It is far more reliable than the American Blackberries, and being so hardy is doubly valuable. When preserved the fruit of the Loganberry is much superior to the Blackberry, being more acid. This is a gain, and the fruits being larger are more valuable. Old plants crop well and make a strong growth each year from the base. This is the next season's fruiting wood.

Middlesex.

G. W.

EARLY FIGS IN POTS.

Those who enjoy Figs over as long a season as possible will find the *St. John's* the best variety to give a supply from March till June. There are larger varieties of better flavour, but these do not force well. The *St. John's* variety is above middle size, of very good flavour, and not much inferior to the later sorts. For flavour alone I do not think any variety approaches the Black Figs, such as *Negro Largo* or *Bourjassotte Grise*, but these are not available at the season named, though of great value for succession. Another drawback is that the large Black Figs drop so badly when hard forced, whereas the *St. John's* is the best Fig known, as the crop is retained till the fruits are ripe; the only drawback is that it crops too freely and needs severe thinning. There is another variety much like the *St. John's*, the *Pingo de Mel*, which many consider synonymous. It is very similar in colour, size, and flavour, but the trees with me of the last-named variety are more spreading in the growth, and the flesh is yellow,

whereas *St. John's* is white. They are specially adapted for pot culture. Both varieties received first-class certificates from the Royal Horticultural Society a few years ago. It must not be forgotten that the fruits need careful handling, and when ripe an excess of moisture either at the roots or on the fruits causes what is termed dry spot. I do not intend to go at length into cultural details, but I would add that these two varieties are certainly most profitable in pots, as they never fail to crop freely. The trees placed in a cool house in November and gently forced will give fruits in March. Of course much depends upon the size of the trees and whether the wood is well matured. In July we place our trees in the open, the pots being plunged to prevent drying. The trees give no trouble. They only need a little shortening of stray branches during the growing season, that is, when in fruit. If this is done they will need no further pruning, as that is best done by stopping the shoots every few days or at least once a week when in full vigour. Repotting is best done early in autumn, just before housing, and large shifts should be avoided. It is surprising how small a pot is necessary if food and moisture are given. For many years I grew the *Brown Turkey* and *Osborn's* for first supplies, but these are not so good at the season named. Of course for later use and planted out *Brown Turkey* is doubtless the best all round variety grown, and for autumn the *Negro Largo* grown in pots is most valuable; to this may be added *Nebian* or *Grosse Verte*.

G. WYTHES.

BLACKBERRIES AND ALLIED FRUITS.

THESE useful fruits give variety to the year's supply, and are valuable in the making of jam, jelly, and tarts. They require but little care in cultivation, and grow freely in any ordinary soil. The best results are obtained from plants in rows 6 feet apart, the shoots being trained right and left, espalier style. The fruiting shoots can then be removed every season, and fresh sturdy growths laid in as they are produced for the following year's crop; some peg them down and cut off the ends after August to strengthen the lower buds, which next year produce strong-flowering branches.

All the pruning necessary is to cut away the old fruiting wood yearly, as with Raspberries. When established all grow strongly, and the plants can be placed from 6 feet to 10 feet apart. The American sorts, as a rule, flower freely, but only fruit satisfactorily in a few positions or in very favourable seasons.

Parsley-leaved Blackberry.—This is the best of the Blackberries for general culture. The fruit is very large, freely produced, and the foliage is handsome, the stems being of a rich colour also. It is *Rubus laciniatus*; in point of flavour it is not equal to the wild Blackberry, which can be obtained from any British hedgerow, and well repays the care of good cultivation.

Cumberland Blackcap, or the *Whitewash Bramble* (*Rubus leucodermis*).—This is a handsome plant, the stems being white. The fruit is small and black, and ripens before the wild Blackberries.

Early King is a large-fruited American variety which ripens early.



LOGANBERRIES.

The Lawton is a large American variety.

Lucretia is suitable for culture in damp, boggy land. The black fruits are large and acid and resemble the Dewberry.

Wilson Junior is one of the best large American black sorts, and grows very freely.

The Wineberry (*Rubus phoenicolasius*) is a strong climber and beautiful, even in winter the shoots are thickly covered with red, short spines; in summer the velvety foliage is conspicuous. The reddish fruits are produced freely in the autumn; birds are very fond of them. The berries are small, and when cooked have a pleasant, distinct flavour.

The Loganberry is a vigorous grower, the shoots reaching 10 feet to 12 feet high in a season. Its handsome foliage is striking, and

it gives an abundant supply of large red berries, which resemble Raspberries before they are ripe. The Loganberry is an American hybrid between the Blackberry and the Raspberry. The flavour is rich when cooked. When used for dessert the fruits need to be fully ripe.

The Mahdi.—This novelty is the result of a cross between Raspberry Belle de Fontenay and the common Blackberry, and is a valuable addition to hardy fruits. In habit of growth and foliage it somewhat resembles the Blackberry, and the fruit ripens during the latter part of July and early August. The flavour is excellent, superior to that of the Loganberry.

CHERRY GROWING.

(Continued from page 445, Vol. LXIII.)

CHERRIES IN THE ORCHARD.

BEFORE setting out to plant standard Cherry trees there are a few important points that it is well to consider. The first is suitability of soil and situation. It may be all very well to plant some fruits and trust to chance, but this hit or miss method will not answer with Cherries. I have already pointed out the requirements of the fruit, and may say here that I have seen pounds and pounds literally thrown away in attempting to establish Cherry orchards on water-logged soil. Good drainage is absolutely essential, and without it nothing but failure can result. The second point to be considered is the bird question. Various members of the feathered tribe have a marked taste for ripe Cherries, and to simply plant a few odd trees in an orchard along with other fruits is often only a waste of time and money, as the birds generally get the best part of the crop. If orchard culture is gone into at all sufficient trees should be planted to merit the expense of paying a man or boy to look after the fruit when it is ripe.

From observation and experience I am disposed to think that the best site for establishing an orchard is on arable land, because the trees make a better start when the ground is under cultivation for the first few years than if they are planted in turf. At the same time I am aware that this proceeding is not always practicable, and the next best thing is to keep the ground round the trees for a distance of 6 feet or so bare of turf for a few years. Thirty feet apart is a good distance to plant standard Cherries, which should be supported by stout stakes and be protected from animals of any kind injuring the bark. The grass in Cherry orchards should be kept closely fed off, preferably by sheep, and to attempt to get a risk of Hay from the enclosure means something detrimental to the health of the trees. When in full bearing standard Cherries need feeding, and top-dressings of animal manure are highly beneficial. The contents of liquid manure tanks poured over the roots in the winter help the trees considerably, and where lime is deficient occasional dressings of this material, chalk, basic slag, or old mortar rubble may be applied with advantage.

Pruning.—The prime object at the outset is to furnish the trees with good heads, and this done the less acquaintanceship they have with the knife the better on account of the deadly gum trouble. When newly-planted specimens have got hold at the roots the shoots need shortening to induce them to throw out strong growths that are to form the main branches of the tree, and it is necessary to do a little pruning for a few years in order to shape the heads. After that the less knife the better, and pruning operations consist in going over the trees in October for the purpose of removing dead branches and thinning out growths where there is any danger of crowding. No hard and fast rules can be laid down for this operation; the judgment of the operator must be the guide, though it is well to remember that it is better to err on the side of doing too little cutting than too much.

Varieties.—In the garden list above I have already mentioned some varieties that are well suited to orchard culture, and in this selection I

append the names of Cherries that are frequently met with and do well in the orchards of Kent. Amongst the Cherries known as White Hearts and Amber Bigarreus, we have the Elton Heart, an early orchard variety, that does well in retentive soil; Early Amber, a very early variety, largely grown in East Kent; Kentish Bigarreau or Amber Heart, a splendid mid-season Cherry, one of the standard Kentish varieties; and Bigarreau Napoleon, Florence, and Emperor Francis, all of which are late.

The most desirable amongst the Black Heart and Black Bigarreau Cherries for orchard culture are Early Rivers', Old Black Heart, and Werder's Black Heart, for the first picking, followed by Black Circassian, Turkey Heart, and Waterloo Heart for late use. A few of the Duke Cherries are suitable for orchard culture, amongst the best being May Duke, which is excellent, Royal Duke, and Late Duke.

MORELLO CHERRIES.

All the varieties in this division are suitable for culinary and preserving purposes, while the sharp acid flavour of the fruits is acceptable to some palates for dessert. As a rule Morello Cherries are less exacting in their soil requirements than the sweet kinds, not so liable to gumming, and more hardy. For furnishing a north wall no fruit is more suitable than a Morello Cherry, and if protected the berries will hang till quite late in the autumn, when they are most acceptable. Morello Cherries succeed almost as well as pyramids in the open as they do on walls, and occasionally they are planted as low standards. The habit of Morello Cherries is to produce fruit chiefly on young shoots of the previous season's growth, and consequently the pruning of wall trees consists of removing any useless branches and laying in as much young wood as possible. In the case of trees growing out in the open very little knife work is required when specimens are established. In addition to the Morello of gardens, a useful little Cherry for culinary purposes is largely grown in Kent, known as the Kentish Red. This is the fruit from which most of the Cherry brandy is made. It succeeds well in the form of bushes and low standards, and rarely fails to crop. The Flemish Red is somewhat similar, but it is later and the fruits are rather larger. For preserving and culinary purposes it is a desirable variety. G. H. HOLLINGSWORTH.

(To be continued.)

WORCESTERSHIRE NOTES.

SPIRÆA CESPITOSA.

THIS little gem is one of the latest additions to my collection. It is a remarkable species, so small that a crown piece would entirely cover it, and the dwarfest member of the genus so far as I can



THE ALTAIAN COLUMBINE (AQUILEGIA GLANDULOSA).

(Single plant with 153 flowers and buds.)

ascertain. The plant forms dense rosette-like masses of tiny, narrow, glaucous green leaves, and becomes quite a thick carpet. It is a native of North America, from New Mexico to Northern Nevada, where it grows on damp limestone rocks at a considerable elevation. The flowers, I learn, are small and white, and appear in early autumn on stems 1 inch or 2 inches high. I am trying this interesting plant at the moist edge of a tub containing the dainty little *Nymphaea pygmaea helveola*, and have surrounded it with small pieces of limestone rock.

CYDONIA SAGENTI.

Here is another small subject, and one which has been quite a conspicuous feature in my small rock garden this spring, so much so that I can thoroughly recommend it as a most desirable dwarf shrub for almost any purpose, although from its habit of growth the rock garden would appear to be its proper home. It came to me from Newry under the name of *Cydonia pygmaea*, and, though I cannot at the time of writing trace any authority for this name, I observe that Messrs. Lemoine are distributing a *Cydonia*, which exactly answers to the description of my plant, under the name of *C. Sagenti*. Whatever may prove to be its correct name, it is very lovely, and all through April its erect little spreading branches were smothered with bright orange flowers. In spite, too, of the bitter April weather which so injured many of our hardy shrubs, this handsome little one appeared quite unaffected, and has even set fruit.

SLUG CATCHING.

This subject has been given considerable prominence of late. I suppose the wet summer last year has something to do with this, as it proved

congenial to the welfare of these pests. A correspondent wrote to the *Field* some weeks ago as follows:—"The only effective remedy I can find for a plague of slugs is successional broods of ducklings—a fresh brood every month. No other plan is of any avail in my garden, which has large grassy banks on all sides and meadows beyond them. The late Miss Ormerod kindly gave me the result of her experiments, and she found lime most effective—one application at dawn, another after the slugs had expended a lot of slime, and a third to make sure later on. The slime being their protection, when they have exhausted the supply, lime kills them; but this plan is useless to me, as they keep invading the garden from the grass outside daily. I find a wash of one to twenty-five of creosote acid and water on frames and staging prevents them from climbing, and the deterrent lasts a fortnight at least." After this follows an editorial note to the effect that powdered quicklime will kill every slug or snail on which it falls, and is best as dusted over crops after showers, or in the gloaming, when these marauders are abroad. Most of us, too, will agree with the editor when he goes on to add that ducklings, &c., are very useful, but it is not practicable to employ them in many small gardens.

To the majority of hardy plant growers the remedy suggested is worse than the disease. To have such gems as the *Androsace* and encrusted *Saxifrages* overrun with ducklings (however small) would end, I am afraid, in disaster for the plants. Dr. Bonavia draws attention in the *Gardener's Chronicle* to a statement in "Animal Life" that the favourite diet of the blind-worm (sometimes known as the slow-worm) consists of small grey meadow slugs; and for that reason it is most beneficial to the gardener and the agriculturist. I was extremely interested by some further remarks of Dr. Bonavia's, and have therefore looked up the matter, as the reptile is fairly abundant in this district.

According to "Chambers's Encyclopædia" "it is very timid, and when alarmed contracts itself forcibly, and then becomes remarkably brittle, so as to be easily broken in two by a blow or by an attempt to bend it. The name blind-worm has apparently originated in a mistake caused by the smallness of the eyes, which, however, are very quick and brilliant. Its food consists of slugs and insects, and it retires in autumn under masses of decayed wood and leaves or into dry soft soil." A friend of mine kept one in captivity for a considerable period, feeding it on earthworms. At the time I did not know that slugs were included amongst its diet, so that I was not interested in his strange pet, but now I intend procuring one as soon as possible.

In a well-known journal devoted to the fair sex a friend has pointed out to me the following paragraph under the heading of "Amateur Gardening":—"A very simple mode of slug catching has been suggested by a practical amateur, who declares it to be most efficacious. This is to place a few old saucers about in the borders, and pour into them early in the evening three or four tablespoonfuls of ordinary draught beer. The next morning the saucers will simply be crowded with tipsy slugs, which can be easily destroyed by pouring boiling water over them. If fowls are kept this disagreeable operation may be avoided, for the slugs will afford them a perfect feast, and the residue of beer will do them no harm." The italics are mine! I am not quite sure whether this "very simple mode" is really to be taken seriously. According to an amusing case which figured in a Scotch law court some time ago the effect of intoxicants on fowls is decidedly more degrading than one could possibly imagine.

The sum total of my experience with slugs is that hand picking with a lamp

at night is the only efficient way of dealing with them as far as hardy plants are concerned. Zinc rings and other contrivances are unsightly, and there is no pleasure in growing such plants, for instance, as *Cotyledon spinosa* and *Androsace sempervivoides* when their beauty is marred by an ugly piece of metal. My advice to anyone about to construct a rock garden or to make an herbaceous border is to put small heaps of bran on and around the ground it is proposed to lay out. Then pay several visits each evening to these heaps and collect all the slugs which in this way have been attracted, dropping them into a can of brine. The bran should be renewed occasionally, and after a while it will be found that all the slugs are caught. I know of no better way of ridding a piece of ground of these pests; it is both simple and inexpensive. The indiscriminate use of soot and lime amongst alpine plants is likely to do as much damage as the slugs themselves.

ARTHUR R. GOODWIN.

NOTES ON HARDY PLANTS

EREMURUS HIM-ROB.

MAY I be permitted to rectify a small error in your issue of the 20th ult., re the hybrid *Eremurus* described by your correspondent (see page 423)? The parentage given is not quite correct, as *E. himalaicus* has been the seed-parent, and not *E. robustus*. The name should read him-rob, not nimrob. In naming this plant, which was raised in Messrs. Van Tubergen's nurseries, I followed Sir Michael Foster's example, who advocates the system of naming hybrids by uniting abbreviations of the names of the parents. This system has the great advantage that with hybrid plants it at once reveals their parentage.

Haarlem, Holland.

JOHN HOOG.

AQUILEGIA GLANDULOSA.

THIS nursery is the headquarters of *Aquilegia glandulosa*, and has been so for a long time. It is one of my specialities—indeed, my only speciality in the flower way—for our nurseries

are mainly devoted to forest trees, ornamental trees and shrubs, fruit trees, Roses, &c. This *Columbine* is the only species grown here, so as to keep the strain pure.

This year my stock of plants flowered splendidly and are setting seed well, while last season I had also a good deal of bloom, but failed to get much seed on account, I suppose, of so much rain just at the critical time of setting. The two illustrations would have been more interesting if the photographs had been taken a couple of days or so sooner, as the flowers were past their best. The illustration of the single specimen represents the best flowering plant of this *Columbine* that I have ever seen or heard of. Before this specimen bloomed well-flowered plants might be had with from fifty to eighty blooms and buds; but the one illustrated had the enormous number of 153 flowers and buds in all stages of development. On the day it was photographed about fifty-six of the flowers were open, the remainder being buds in the various stages. The average diameter of the flowers is $3\frac{1}{2}$ inches, but this year I had many 4 inches to $4\frac{1}{2}$ inches across, and one measured 5 inches, but it was exceptional.

With us this plant neither has nor requires any special attention. It does not do much good in light or poor soil, thriving best in rich soil and that not liable to get dry in summer. Our present flowering plants are growing on peaty soil, and we get water 3 feet to 4 feet below the surface. Transplanted tufts will flower in beds where the seeds have been sown, but plants that have flowered for some years dwindle away. I think three year old plants that have been well grown flower most profusely, although they bloom well for years after.

Plants can be moved during open weather from the end of August to the end of April. Seed ripens about the first week of July, and that freshly gathered is best; and if sown at once—during July—it will germinate mostly the same summer and the remainder the



GROUPS OF *AQUILEGIA GLANDULOSA* IN MR. WISEMAN'S NURSERY, FORRES, N.B.

following year. If seed is kept over until the following spring after gathering it loses a deal of germinating power; so the best method is to get seed whenever ripe and sow it in the open at once.

W. WISEMAN.

The Nurseries, Forres, N.B.

LEWISIA TWEEDYI.

WE are pleased to illustrate this beautiful flower, and should be glad if readers would give their experience of it. It is somewhat tender as a rule, but the lovely colouring of the flowers is a full reward for any trouble necessary to get good results.

LYCHNIS CHALCEDONICA.

AMONG the old garden flowers we must place *Lychnis chalcedonica*, whose introduction by way

of the East, if we are to believe the records of the past, dates from the time of the Crusaders. As the author of "*Flora Historica*" says, it is more than probable that it was introduced into Europe in their day, "since we find so many of the Continental languages agree in calling it the Cross of Jerusalem—the French, *Croix de Jerusalem*; the Spaniards, *Cruces de Jerusalem*; the Italians, *Croce di Cavalieri*; the Germans, *Hierosolymorum flos*." Gerard speaks of it as common in English gardens in 1596, and he calls it the "*Flower of Constantinople*" and the "*Campion of Constantinople*." Its more common name in recent years has been simply that of the "*Scarlet Lychnis*," a term which expresses graphically, when we are aware of the supposed derivation of the name of *Lychnis*, said to come from one signifying flame or lamp, the flame-like appearance of the blossoms. When seen in certain lights our flower seems to be appropriately so named from the brilliancy of its

colour and the effect it makes in the garden. That it has long been a favourite need not cause surprise, as even in the summer months, when the garden is full of colour, this flower can well hold its own. If we are to accept common tradition and many authorities, the scarlet *Lychnis* comes from Russia, but the "*Index Kewensis*" gives Japan as its native place. It would be interesting to trace this old flower in the course of its wanderings until it found its way to our isles. It seems almost needless to describe it. Growing from 1½ feet to about 4 feet high, according to the nature of the soil and the cultivation it receives, it looks handsome with its stem-clasping, rather lanceolate leaves and the clusters of scarlet flowers which surmount the erect stem.

The typical plant with single flowers is easily raised from seeds or increased by division, and there are varieties with white and rose-coloured flowers in addition to the scarlet. It is, however, to its double-flowered varieties that the scarlet *Lychnis* mainly owes its popularity. The double scarlet is the most brilliant, and gives precedence to none of its compeers in its season. Scarcer and beautiful, if less striking, is the double white variety, which one seldom sees offered in a catalogue. It is said to have been a favourite with the Dutch, but it does not seem to have been known to Henry Van Oosten, whose "*Dutch Gardener*"; or, the *Compleat Florist*" lies before me as I write, and who speaks of only "one sort of double *Lychnis*." It has, however, long been known in this country, and is appreciated by some, though, personally, I should not compare it with the double scarlet for garden use. One may say the same of another double—the double rose—which I have not seen for years, and which must now be very rare.

The double varieties can be increased by division in early spring, though it is not always that increase by this simple method is possible from the absence of side growths. Sometimes, however, slips may be procured from the roots in autumn, but, failing these, propagation is best effected by making cuttings of the flower-stems before the flowers open in early summer. This process requires more care than can often be spared in these times, but it is the most certain way of raising a stock. The stems should be cut into pieces of three or four joints and inserted in light soil on a half shady bed or border, leaving only one eye above the surface. They should be watered so as to settle the soil about the cuttings, and then covered with a hand-light or glass, shaded from strong sun, until they root, which ought to be in from six to seven weeks, when some air may be given and they may be gradually exposed to the sun. These double varieties are worthy of this trouble and care. It is unnecessary to detail the raising of the single form from seeds, the treatment not differing from that of other hardy flowers. The scarlet *Lychnis* likes a warm situation in a rich but well-drained soil, and a group has a much better effect than a single plant. S. ARNOTT.

NOTES FROM A YORKSHIRE GARDEN.

MOSSY SAXIFRAGES AS EDGING PLANTS.

THIS particular Yorkshire garden consisted at first only of a portion of a field, with a concrete walk leading up to a new house. It was a question how best to obliterate as quickly as possible the stiff concrete edgings of the path and give a pretty setting to the herbaceous border that it was proposed to make. After preparing and planting the latter, the edging consisted for the first year of Pansies, and very gay they looked during the summer. But in winter the concrete edging was very bare and ugly, so in the following spring a number of mossy Saxifrages took their place, and have proved a great success during the four years they have been planted. Beautiful fresh green tufts greet the eye in autumn and winter, followed by masses of little flowers in spring, and all so easily grown and spreading so quickly. Perhaps *Saxifraga Rhei* with its rose-pink blooms is as charming as any, and close by is the rich red little *atropurpurea*, whilst muscoides and cæspitosa spread their white carpet of blooms in contrast to



LEWISIA TWEEDYI. (From a photograph by Miss Willmott.)

their fellows. There is no special order or arrangement of sorts; first one variety, then another, and sometimes two or three bosses of the same colour together, the general effect being very pleasing.

WALTER JESPER.

AN ARTIST'S NOTE-BOOK.

ASPIDISTRA LURIDA.

ASPIDISTRA LURIDA, with its leathery Palm-like leaves and quaint, dull-coloured flowers, that barely rise above the surface of the soil, would appear to be as widely removed as possible from the charming *Madonna Lily*, whose shafts of the purest white flowers form a delightful feature in many gardens, yet the two are closely allied, both being members of the extensive order *Liliaceæ*. Unlike most of its relatives, this *Aspidistra* is chiefly valued for the persistent character of its handsome shining leaves and the manner in which it adapts itself to adverse conditions, for as a window plant even in the smoky districts of London, the *Aspidistra*, known popularly as the Parlour Palm, will not only hold its own but flourish.

No description of the *Aspidistra* is necessary, as it is a well-known plant, but its curious flowers perplex many. They appear during spring, firstly in the shape of little knobs on the creeping rhizomes, which push their way just clear of the soil, increase in size, and ultimately expand. They are of a thick, wax-like texture, of a lurid purple when expanded, and have a curious Mushroom-like stigma. Despite their solid appearance they quickly fade. There is a widespread idea that if allowed to develop the flowers weaken the plant considerably, but there is really no foundation for this, as the effects, if any, are so infinitesimal as to be not worth consideration. China is the native country of the *Aspidistra*, and it was introduced from there in 1822. The variety with variegated leaves—which, when in good condition, is remarkably handsome—is almost as well known as the ordinary green-leaved form. In the "Kew Hand List" the specific names of *elatior* and *lurida* are given, but as generally met with in gardens the two are identical. A third species is also mentioned, viz., *Aspidistra typica*, which was figured in the *Botanical Magazine*, tab. 7484, July, 1896. From a foliage point of view it is not equal to the older kind, but is chiefly remarkable from the flowers being borne on particularly long pedicels, and being arranged in threes instead of fours as *Aspidistras* usually are.

H. P.

ROUND ABOUT A GARDEN.

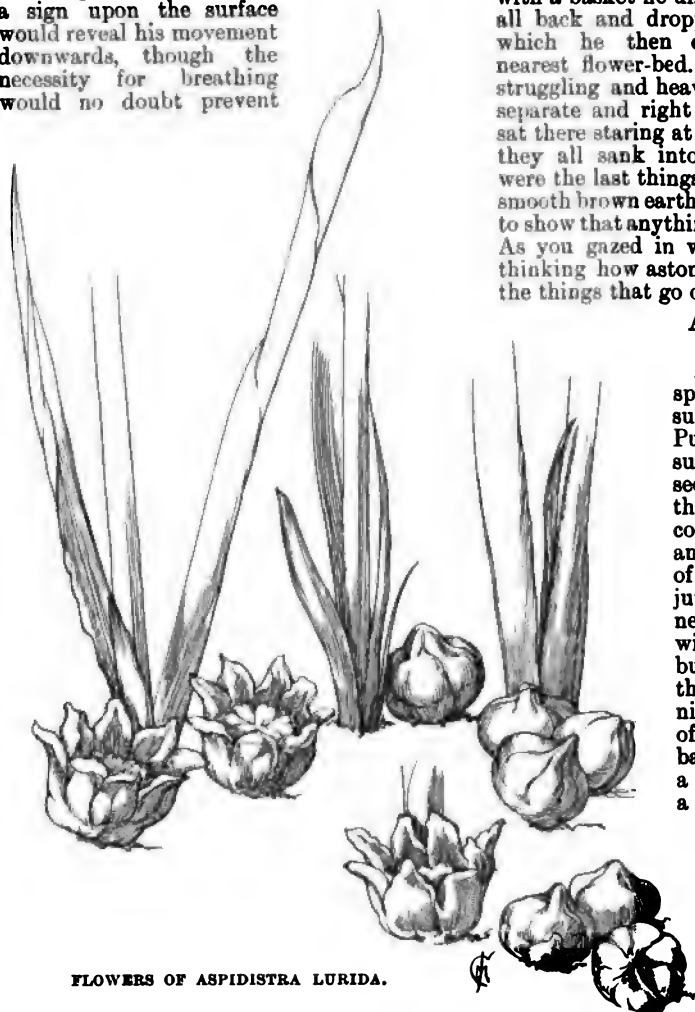
"TOAD IN A HOLE."

If you poke about the corners of a garden you will soon understand how the stories of toads imprisoned in solid rock arise. You hardly ever find a toad in its chosen retreat without wondering how it managed to get in, and how it proposes to get out again; and our ancestors enshrined this batrachian habit in the phrase "toad in a hole," as the name of a dish in which a piece of meat is baked inside a batter with no visible means of entrance or exit. I was reminded of this recently, when a box of young *Celery* plants was lifted from a mound of leaf-mould, on which it had been left for a day or two, and a large toad was revealed in the middle of the flat impression left by the box. His back was perfectly level with the

smooth surface, and he was exactly the same colour as the mould; and, as he exactly fitted the cavity in which he squatted, and there was no sign of the burrow by which he had entered, one might easily have taken him up in a trowelful of earth without noticing him. This peculiar faculty of the toad for burying himself without leaving a trace behind is due to his trick of burrowing backwards, as a crab does, his strong hind legs shovelling the earth forwards until he is covered.

AN INDIAN PARALLEL.

Even as I watched the toad he began to sink very slowly in the leaf-mould, with scarcely any perceptible movement, until he was quite out of sight under a thin layer of earth. After that, of course, it was only a matter for his own judgment how deep he should go for safety. Not a sign upon the surface would reveal his movement downwards, though the necessity for breathing would no doubt prevent



FLOWERS OF ASPIDISTRA LURIDA.

him from going far. In India you may see earth frogs performing the same feat with almost uncanny skill, although it is not often that you catch a glimpse of the evasive creatures at large, because they come out and feed only at night, lying buried in the ground through all the hours of daylight. It so happened, however, that in the compound of our bungalow there was a tennis lawn fenced on the side next the flower-beds with wire netting, with a mesh just large enough to allow the passage of the frogs on ordinary occasions. When the rains come, however, everything which can absorb moisture and eat insects becomes suddenly absurdly fat, because there are countless swarms of insects and water everywhere. Then, rising with the

dawn, you might observe a very curious spectacle on the margin of the tennis lawn.

THE VANISHING TRICK.

A large number of live tennis balls, as it seemed, were kicking with two long legs to force themselves through the wire netting; but if you looked on the other side of the netting you saw it fringed at the ground-level with the heads and fore legs of frogs, and the "tennis balls" on the other side were their tight round bodies, too compactly crammed with insects to get through by the way they had come. It was a terrible time for them, because at dawn the crows and dogs and all sorts of predaceous creatures are on the prowl for the night's leavings; but the *mali* (a native gardener) was the *deus ex machina* to help them out of their woe. Going down the line with a basket he unceremoniously hauled them all back and dropped them into the basket, which he then emptied—kerflop!—on the nearest flower-bed. After an instant of wild struggling and heaving, all the frogs squatted separate and right side up, and then, as they sat there staring at you with great goggle eyes, they all sank into the ground. Their faces were the last things to disappear, and then the smooth brown earth lay over them without a sign to show that anything had disturbed its surface. As you gazed in wonder you could not help thinking how astonishingly little one knows of the things that go on around one every day.

AN UNWELCOME GARDEN GUEST.

And an Indian garden is specially rich in zoological surprises. It was in the Punjab that the report one summer of wolves having been seen in the neighbourhood of the houses caused general concern and no small alarm among the natives on account of their children. The likely jungles in the immediate neighbourhood were drawn with mixed packs of dogs, but drawn blank; yet still the wolves were heard or seen nightly. Beyond the far corner of our large compound was a bathing tank and shrine, where a religious fair was held once a year, and close to this the irrigation channel for the garden was carried between banks several feet high. The rich soil in this corner of the garden bore a tangle of flowering shrubs—scarlet *Hibiscus* and a perfect thicket of *Lantanas*, orange, pink,

and white, weaving them all together into an impenetrable mass. This was a favourite haunt of many scores of kinds of glorious butterflies by day and hawk-moths at night; and there I was standing one evening, butterfly-net in hand, when a rustle made me turn, and within a few feet of me on the water-channel bank I saw, silhouetted against the sky for an instant, a huge wolf. Like a shadow it slipped noiselessly from sight, and next morning, when dogs were brought to the spot, the lair was found under the thicket of flowering shrubs, but neither of the wolves were at home. They had taken warning from our previous evening's meeting and were never seen again; yet many times before they must have listened to my footsteps passing close to them and have heard

the swish of the butterfly-net among the flowers overhead.

EVASIVE PARTRIDGES.

In England wolves need not be looked for "round about a garden," but unsuspected wild beasts may lurk there, nevertheless. For many months the ducklings of a village had been disappearing before the removal of a plank at the edge of a five-foot stream which skirted a cottage garden revealed the opening to an otter's hole. Here he was trapped; but the good wife was never afterwards able to stand with equanimity upon that plank to wash her dishes, lest another of the "fearsome beasts" should be lurking under it again. But for evasiveness in a garden a covey of partridges are hard to beat. Two weeks ago a partridge that was sitting in one of the shrubberies—where there is a nest every year—brought off seventeen chicks from her eighteen eggs, and the whole family of nineteen seldom, if ever, leave the garden. In the early morning a glimpse has been caught of them on the croquet lawn, and the gardener has once come upon them among the Cabbages; yet, though the garden is not large and some of the household move about it all day long, no other sign or sound of these nineteen birds has been observed.

INVISIBLE RABBITS.

There is known to be a rabbit in the garden, too, because twice during the last six months it has been disturbed from a patch of Snapdragons, but careful and repeated search with a terrier fails to reveal its hiding-place. But I have given up being surprised at what rabbits can achieve in the matter of invisibility. Last harvest two little baby rabbits were rescued from the "cutters" and placed in one of our small walled yards. When they were very young and foolish they were often seen to bolt into their little burrow when the door was opened. But by Christmas they had grown so wary that, although the yard is entered twenty times a day, and pigeons, doves, and ducklings are fed there, the rabbits have not been seen since, except one day recently, when we dug them out to make sure that both were alive and to ascertain whether they had children. They are both bucks, however; and there they seem likely to remain, regularly eating the food placed for them, but never once showing themselves, until they die of old age. And the invisible toads, rabbits, and partridges which a garden may contain are only a percentage of the zoological curiosities which everyone who takes over a piece of ground in the country has always upon his hands without knowing anything about them.

E. K. R.

GARDENING OF THE WEEK.

THE FRUIT GARDEN.

STRAWBERRIES IN POTS.

YOUNG plants intended for early forcing should be placed in their fruiting pots. Small pots 6 inches in diameter are quite large enough for the first batch, but for the general stock a larger size may be used with advantage. See that the fruiting pots are clean, dry, and well crocked, for much as the Strawberry enjoys a strong, rich soil, with plenty of moisture, it soon becomes unhealthy in a pot from which water cannot pass away freely. Pot the plants singly, with the crowns well above the soil, and place them on a hard surface in a light, airy situation. Avoid crowding the plants together or setting them near large trees, as it is important that the leaf-stalks be kept short and stout, and that good single crowns in preference to double ones be thoroughly

ripened before the autumn. Give water which has been exposed to the atmosphere, and keep the beds of concrete or ashes on which the plants are placed well moistened. Remove all weeds and runners. Apply lime water if worms are present, and rearrange occasionally to give more room and prevent the plants rooting in the ground. With many growers it is the practice to avoid the use of small pots altogether by filling the fruiting pots up to within three-quarters of an inch of the rim and then pegging or weighting the runners tightly on the surface. The drawback to this plan is the establishment of a colony of worms during the time the pots are standing on the quarters and the time occupied in watering in dry weather. The plants, however, make excellent growth, which ripens well, and the check which follows shifting from 3-inch to fruiting pots is avoided.

PEACHES.

When all the fruit has been taken from the early house go over the trees and remove shoots which have performed their functions and can now be spared with advantage to the young growths intended for next year's fruiting. Tie in and regulate the latter, allowing plenty of room for free development of foliage. Syringe regularly with pure water where the foliage is clean, and add soft soap or Gishurst Compound on dull evenings to keep it clear of spider. Keep the inside borders regularly supplied with water, and renovate the mulching where the trees show signs of weakness or exhaustion from heavy cropping, but carefully guard against forcing them into a vigorous growth when they should be going to rest. The ventilators may now be left open by night and day, and when the buds are plump the roof lights, if possible, may be taken off, painted, and stored away ready for use early in the autumn.

SUCCESSION PEACH HOUSES.

Peach trees in succession houses may now be given a higher temperature than would have been safe before the fruit commenced its last swelling. We prefer a temperature ranging from 60° at night to 75° by day, with plenty of air and full exposure by drawing the lights off when the weather is very fine after the end of June. Where good soft water can be obtained the trees may be syringed every morning until the fruit has attained its full size and shows signs of changing for ripening, but on no account should the afternoon syringing be performed when there is danger of the foliage remaining wet after nightfall.

Madresfield Court.

WILLIAM CRUMP.

KITCHEN GARDEN.

CARROTS.

Two distinct advantages are gained by sowing a good breadth of these at the present time; firstly, the young tender roots come in for kitchen use when the main crop are becoming too large to be used economically; and, secondly, the latter are not drawn upon whilst standing, but can be kept in reserve for winter use. Quite young Carrots of the Short Horn type are always much in request, and especially so in the autumn months. Select a partially shaded site for sowing this batch, and see that the ground is made firm and well watered the day before. Sow the seed thinly in shallow drills, and keep the bed sprinkled during dry weather to hasten germination. Thin out slightly when large enough, and encourage them to make quick growth by giving frequent waterings with clear water, and liquid manure applied alternately. Good varieties are Early Nantes and Carter's Favourite.

SHALLOTS AND GARLIC.

Generally speaking these become fit for lifting together, and they are in most localities now sufficiently ripe, and should be lifted and allowed to dry for a few days before storing. Should the weather be unsettled the bulbs must be put in an airy, cold frame, where they will soon mature.

TOMATOES AGAINST WALLS

in the open are now growing rapidly, and close attention must be paid to nailing or tying up the leaders and pinching out all side shoots as fast as

they appear; this is always necessary, and particularly so this year, for undoubtedly the season will be a short one. The same remarks apply to those planted in open quarters and staked. Feed frequently those plants that are fruiting in pots or boxes, and change the stimulant occasionally. A few days after applying an approved artificial manure the surface soil will be covered with white feeding roots, then is the time to apply a top-dressing of soil about an inch in thickness, I find the following mixture to answer well, viz., two parts loam, one of decayed manure, and one part made up of the following: bone-meal, mortar rubble, road grit, or river sand, a sprinkling of soot and Clay's Fertilizer, and some charred garden refuse. Incorporate well together and ram fairly firm.

WINTER GREENS.

If not already done the required number of plants of Brussels Sprouts, Kale, Savoy, and Broccoli should be put out without delay, as the plants will not have sufficient time in which to become strong and hard for passing through the winter. In gardens having light soil it is hardly possible to put Broccoli into too hard a plot of ground. The best Broccoli I have grown here were inserted with an iron bar on a worn-out Strawberry-bed. They were well watered in at the time of planting and twice afterwards, they were then left to take care of themselves without further attention beyond weeding.

Stoneleigh Abbey Gardens.

H. T. MARTIN.

INDOOR GARDEN.

PROBABLY the most useful Begonia for the early months of the year is B. Gloire de Sceaux, the young stock of which should by this time be potted up into 3-inch pots. I find that a compost of equal parts of loam and peat, together with coarse sand and charcoal, suits this plant better than one containing leaf-soil. Grow them in a warm pit or stove with plenty of moisture in the atmosphere, and give them slight shade during very bright weather. The small yellow thrip, so frequently alluded to, attacks this plant unless a sharp look-out is kept. Other winter-flowering subjects should be advanced as rapidly as is consistent with well built-up growth. Staking and tying must be attended to as growth progresses; let the object be to keep the plants as near to their natural habit of growth as possible, and give sufficient room to any plants growing rather freely.

BONVARDIAS

planted in pits now growing freely should have the points of the strongest shoots pinched out to bring the plants into a more uniform habit of growth without the necessity of tying.

POT ROSES

should now be arranged on the ash border. Personally I prefer to have them plunged in ashes, but where this plan is adopted the plants should be lifted once a fortnight to check any roots that may be growing through the holes of the pots, and if any be found trespassing in this way cut them off; the quantity and also quality of the Roses produced are entirely dependent upon the roots. Any plants requiring a larger pot should be attended to at once, otherwise they will not become sufficiently rooted before the winter, resulting in soft, unripened wood producing but few flowers, and those of poor form and substance. One other condition to guard against is the plants becoming water-logged. Where this is found to occur the plants must be lifted or the ash border drained. Rooted cuttings of

GARDENIAS

may be potted up, three plants in a 5-inch pot. In this way they will become bushy and compact by spring, and flower freely if grown on in a hot pit and plunged in a good bottom-heat. Campanula pyramidalis when grown in pots and now approaching the flowering stage will be much benefited by copious applications of clear liquid manure water. If allowed to become dry at the root at this period this Campanula frequently loses its foliage, and, consequently, much of its attractiveness. The present is a good time to sow a batch of

MIGNONETTE

to follow the outdoor plants, also to select a few dozen pots from them to grow on for training as standard or pyramidal forms for the early summer of next year. Pots 5 inches or 6 inches in diameter are the most suitable. Fill them with two-thirds loam, one-third leaf-soil, and one-eighth part of old mortar broken moderately fine, and place them in a cold frame until the seeds germinate.

Wendover.

J. JAKES.

FLOWER GARDEN.**BORDER CARNATIONS.**

TIME should now be found for mixing soil in readiness for layering these; leaf-soil should be the principal ingredient, with a liberal dose of common sand and enough old Mushroom-bed manure to help retain the moisture. If the layers are to be lifted in October, and the ground on which the present stock is growing is of a light nature, I would strongly advise pressing the ground firmly down with the foot. Given this treatment it will be found that the young plants have a tendency to keep at home in the new soil in which they are layered instead of running deeply, as they are apt to do if the soil is loose. The surface rooting is a decided advantage when they come to be lifted.

PINKS.

Cuttings of these may be put in now as time will permit; old frames or hand-lights will be found serviceable, as by their aid the young pipings can be shaded until they are on the move. It is almost impossible to have too many Pinks. Clumps and lines of them may be planted in many positions, and I would strongly advise all lovers of the Pink family to grow Mrs. Sinkins, Anne Boleyn, and Her Majesty in beds on a north border; by so doing they will prolong the flowering season. One rarely has too many Pinks; they take up very little room, make a fine show, and are always useful to cut from.

PANSIES.

Those who have never witnessed the display that can be produced by planting in beds or in masses the old-fashioned Cliveden Blue, Purple, White, and Yellow can form very little conception of it; and I am not certain that any other plants could be named that will produce such an amount of bloom at any season as these Pansies, in April and May particularly. If the plants were carefully lifted at the end of May or early in June from the flower garden and laid in rich soil in a shady place, having had all the more exhausted parts cut away and being kept watered to enable them to recruit their energies, they can now be divided into as many pieces as can be had with roots, and planted deeper than they were before in free rich soil. They are fond of well-rotted, hot-bed manure, and it should be used freely if fine, healthy plants are to be had. Planted thus and kept watered in a shaded situation they form plenty of fine healthy cuttings by the month of August, which root freely under hand-glasses in sandy soil; but those who have not even a hand-glass can root them behind a north wall, where the sun does not reach them.

AQUILEGIAS.

These are elegant plants and profuse bloomers, too rarely seen, although easily raised from seed. The long-spurred varieties are of great beauty and utility and good for cutting. Seed should be sown now in boxes of light soil placed in a cold frame. Sow very thinly, and when the seedlings are of a fair size transplant them to the place they are intended

to grow in. A moderately warm, dry soil suits them best.

T. B. FIELD.

Ashwellthorpe Hall Gardens, Norwich.

CHRYSANTHEMUMS.

THE work among these will now be full of interest, though not at all times of the most pleasant character, for there is yet much to contend with before the flowers are perfected, more especially when one intends entering into friendly competition on any given date. The heavy rainfall experienced in many parts of the country kept newly-potted plants in a very saddened condition for some days, and unless means were taken to ward off some of it many of the weaker plants will have suffered considerably. We have registered here for June nearly 6 inches, but fortunately our plants had been potted rather earlier than usual, and were, therefore, better prepared to receive it than if this had just been performed. The advantage of thorough drainage will have proved its value, especially during such a season as the present, though at all times it is unquestionably most important, so also is the arranging of the pots on boards rather than on ashes. During spells of very wet weather it is a capital plan to raise the pots on two short pieces of lath, thus allowing the water to pass away freely.

FEEDING.

By the time these lines are in print the plants will have used up most of the manure placed in with the soil, and will need further stimulating. Some are content to wait till the bud is formed before resorting to manure, but in my opinion this is certainly a wrong method. At the same time during the bud formation feeding should be very cautiously done, which will mean in about a month or six weeks' time. No plant enjoys a change of food more than the Chrysanthemum, and few things in the way of manure, providing they are judiciously used, will come amiss to them. Good Peruvian Guano when it can be procured is certainly one of the best, but requires to be used with caution. Farmyard liquid manure, when it can be relied on to contain nothing injurious, well diluted is also excellent, but the safest and one of the best methods is to mix up fresh horse and cow manure in equal proportions in a large vessel. Add a bag of soot to it and replenish when exhausted. Good patent manures are best applied during showery weather. The surface soil should be stirred up often but not sufficiently deep to injure the young feeding roots on the top. Many of the varieties are now forming what is known as the July bud, and these should be removed as quickly as possible. Three shoots will generally break away. These should all be retained for a short time, finally

selecting the strongest and best and removing the other two, where three growths have been already made, thus securing three flowers to each plant. The leaf miner has been most troublesome this year. It has inflicted considerable damage upon the under foliage, where the leaves are badly disfigured. These should be removed and the others carefully looked over, removing the maggot with a pointed stick. After this date this will probably cause little further trouble. Watch closely for earwigs, and trap and destroy them.

E. BECKETT.

Aldenham House Gardens, Elstree.

WATER LILIES.

THE cultivation of beautiful and highly coloured Water Lilies is no new thing in England, as many suppose. They were magnificently grown at Chatsworth in Sir Joseph Paxton's time, forty or fifty years ago, and are so still. The great Victoria Regia and Water Lily house there, by its light construction and the means of providing moderate heat in the atmosphere and water, is an ideal home in which to grow these plants, and with due deference to the merits of the hardy hybrids introduced of late years, I have no hesitation in saying that for stateliness of growth, brilliancy of colour, quality of flower, and sweet scent they are not to be compared with those well grown under glass. I mention this only in order to place the fact before your younger readers that these beautiful flowers have been grown in many English gardens for a long time before the hardy hybrids were introduced from France and America. In those days they could only be enjoyed by the few on account of the expense incurred in their culture under glass. Now, thanks to the enterprise of our American and French hybridists, they may be had by all who possess a garden, or even a sunny back yard large enough to hold a tub of water.

As the culture of Water Lilies becomes better understood, and the price of the best varieties decreases, their cultivation in every garden and park will be the rule. The most common way of growing these Lilies up to the present seems to be in tanks and tubs. I must say that they are not seen to the best advantage when grown under such conditions. They are too much restricted, and are far more attractive when growing in tanks and ornamental waters. Four years ago I had the privilege of planting



NYMPHÆA GLORIOSA IN A POOL.

a number in the large lake at Frogmore House, Royal Gardens. Some were planted at a depth of 2½ feet or more (I mention this as many are under the impression they will not succeed when planted so deep); to each plant a small cart-load of turfy loam and manure in equal proportions was given. The plants were first planted in shallow wicker baskets in the same material, and sunk securely in the heap of soil. They have succeeded remarkably well, and under those conditions seem to grow as freely or more so than the common white one. They delight in rich soil, and the strong growing varieties should be lifted and divided every three or four years, the divided plant often making from eight to a dozen plants for replanting. In this way a large surface of water may be covered in a comparatively short time by these beautiful flowers. From the middle to the end of April is the best time for dividing and replanting.

VARIETIES.

Among the bright crimsons and reds, for robustness of growth, size of flower, free flowering, and rich colour I would place *Gloriosa* (shown in the accompanying illustration) in the first position; *Carnes* is also a vigorous grower, very free flowering, light pink in colour, and deliciously sweet; *Ellisiana* also grows well, flowers freely, and is one of the most handsome, a brilliant red in colour, with bright orange stamens; *Falconeri*, intense crimson in colour, leaves and flowers of medium size, which, however, are freely produced; *Laydekerii rosea*, as its name implies, is a light-coloured variety of pleasing tints of rose, pink, and flesh colour; *Robinsoniana*, dark rose, of moderate growth, and very floriferous; *Marliacea ignea*, intense crimson in colour, one of the most effective as regards colouring, flowers of medium size, and growth moderate.

Among the yellows *Chromatella* is one of the very best, the colour pale canary yellow. It is a strong grower, almost a perpetual bloomer, flowers of immense size, often 8 inches in diameter. They are produced on strong stalks well above the water. *Helveola* is of medium growth, flowers rather small, canary yellow in colour, and richly perfumed; *Flava*, a pretty yellow, of moderate growth, and very free.

Of the whites *Marliacea alba* is perhaps the best, flowers of noble size, the colour pure white, and requires plenty of space, as it is a vigorous grower; *Odorata*, one of the handsomest of the whites, is deliciously scented, the tips of the petals tinted with pink; *Pygmea* is a little gem, miniature in growth and size of flower, colour of the purest white, and suitable for growing in tubs. Unfortunately, so far we have no blue hardy Water Lilies. Let us hope that before long a hardy *stellata* or *zanzibarensis* may be forthcoming.

Those who wish to enjoy the feast of colour that Water Lilies are capable of giving should visit them in the morning or midday. They are not seen to advantage in the afternoon and evening.

OWEN THOMAS.

RECENT PLANT PORTRAITS.

THE *Botanical Magazine* for July contains portraits of

Senecio clivorum.—A native of China and Japan. This is also known under the synonym of *Ligularia clivorum*. It is certainly one of the handsomest of all the herbaceous species of the genus, producing bunches of large orange flowers on tall stems. It will form a conspicuous ornament of the wild garden, and is specially suited for the brink of ponds and other moist places.

Helleborus lividus.—Native of Majorca. This plant was figured in the *Botanical Magazine* so far back as 1789, but so inaccurately that it is now considered necessary to give a correct portrait, together with its full synonymy and its native country, which was unknown when the first figure was published.

Iris lupina.—Native of Armenia. This is one of the *Oncocylus* or Cushion section of the family, and is known to the natives as Wolf's Ear, which accounts for the name given to it by Professor Sir Michael Foster, who first introduced it to cultivation. It is nearly allied to the old and well-known *I. susiana*, figured on t. 91 of the *Botanical Magazine*.

Huernia concinna (syn. *H. macrocarpa*).—Native of Somaliland. This small-flowered stapeliaceous plant is of only botanical interest.

Calothamnus rupestris.—Native of Western Australia. This is one of twenty-two species of a family of curious and more or less handsome flowering shrubs, all of them natives of South-Western Australia. The flowers have no petals, but consist of a number of brilliantly-coloured stamens issuing from a furcate, greenish white calyx, which retain their beauty for quite three weeks. The specimen figured was flowered in the Cambridge Botanic Gardens and sent to Kew by Mr. Lynch, the curator.

The first number of the Paris *Revue Horticole* for July figures

Protea Mellifera.—A native of the Cape and of Australia, where it is known as the Honey Flower or Sugar Bush, from the abundance of sweet nectar afforded by its large and handsome flowers.

The July number of the *Revue de l'Horticulture Belge* figures two well known but beautiful greenhouse shrubs from New Holland, under their old name of *Genetyllis fusioides* and *tulipifera*. They are also known under the name of *Hederoma* and *Darwinia*.

W. E. GUMBLETON.

NURSERY GARDENS.

ROSES AT CHESHUNT

MESSRS. PAUL AND SON'S beautiful display of Roses at the Holland House show, combined with a cordial invitation from the head of the firm, Mr. George Paul, to "come and see them growing," were the inducements held out to me to pay a visit to the Old Nurseries on the 27th ult. Of course, it was too early to see in bloom the majority of the Teas, Hybrid Teas, and Hybrid Perpetuals, which had been severely checked by the cold and inclement weather of the previous fortnight, although here and there some of the earlier varieties had a few flowers expanded. Many of the so-called garden Roses were, however, magnificent, and alone amply rewarded me for my visit. Pride of place must be given to

ROSA RUGOSA REPENS ALBA,

which, it is worthily claimed, is, so far, the finest garden Rose introduced this century. Words fail me in attempting to describe the exceeding beauty of this variety at Cheshunt. The original plant was measured by Mr. G. Paul in my presence, and was found to cover a space of no less than 160 square feet, and when I go on to say that it is simply the white *rugosa* with the habit of *Rosa wichuraiana*, and that it bore thousands of stellate flowers and had many thousands of buds to follow, some slight conception can be formed of this truly magnificent novelty. My advice to any rosarians who are in the neighbourhood of London is to go and see this fine plant for themselves, when they will find that I have in no way exaggerated. Mr. Paul told me that it originated in a batch of *rugosa* seedlings, and, although it is almost impossible to trace any

wichuraiana blood in it, I learn that Mr. Baker considers it must have originated through a chance cross with the latter species. The plant forms a perfect thicket, some of the growths being pendent and some prostrate, while it rivals *R. wichuraiana* in its scrambling habit. As a standard it is still more remarkable, and is, I think, seen even to greater advantage, because the graceful and floriferous shoots droop down to the ground, where they will soon layer themselves if allowed to do so. The long rows of standards of this variety were all in bloom at the time of my visit, and were, indeed, a sight to behold. I have never seen more beautiful weeping standards, even among the new *wichuraiana* varieties. Of course these latter were well represented, and where all are good it is really invidious to select. However, my choice falls on

RENE ANDRE AND ALBERIC BARBIER

as being the best varieties with which I have made acquaintance so far. What a wealth of treatment these Roses lend themselves to. We may use them for tumbling over a sunk fence, draping a bank, festooning a low terrace wall, or falling over the surface of a large rock; indeed, there is scarcely any limit to the uses to which we may put them. In this garden we are using them as a carpet to shrubs, and Mr. Milburn has planted them over some blocks of weathered oolite stone in the Botanic Garden. At Cheshunt René André planted on a raised mound, was superb in its bright orange-red blossoms, and it is a great gain that these Roses should be so easy to flower. Alberic Barbier is just the variety to plant with the last-named, as its coral yellow flowers and deep yellow buds form a happy contrast. The walls of Roses prove one of the most conspicuous features at Cheshunt, and some of them were just at their best, particularly *Una*, *The Wallflower* (most named, in that it blooms from the top to the bottom of its shoots and makes a perfect carpet of rosy crimson flowers), *The Lion*, *Carillon*, *Pillar*, and *Leuchstern*. A group of the *R. bon Purity*, in spite of the fact that it is one of those which was badly cut by the frost, was covered with fresh white blossoms, and *bed of Royal Scarlet*, the brilliant crimson single Hybrid Perpetual, displayed how effective this variety is for bedding.

LADY BATTERSEA

has already attained great popularity—indeed the demand for this variety exceeds the supply—and if planted rather thickly makes a splendid bed. The blooms are produced on such long stalks that the size of the plants is considerably diminished when they are cut the full length, and one only wishes that it possessed a somewhat stronger habit of growth. Unfortunately, it does not form a good standard. Undoubtedly the Rose for this latter purpose is

FRAU KARL DRUSCHKE.

Its bold, vigorous shoots soon form a splendid head, and Mr. Paul is justly loud in its praises. Another variety which makes a standard of remarkable beauty is *Tea Rambler*. I did not care for the forced examples of this Rose exhibited at the Temple show, but it is splendid as I saw it in the open. A long row of two year old standards were literally beset with the coppery salmon-pink blossoms, which will please the most fastidious. They are very fragrant, of pretty shape, and have the merit of remaining long in bloom. Although the foliage is Tea-like, the plants appeared to be very hardy, and had scarcely suffered in the least from the past trying winter and spring. François Crousse is another variety which

nakes an excellent standard. Only a very few of its flowers were expanded, so that I was not well able to judge as to its merits, but in colouring it is not as good as Noella Nabendland. I was exceedingly pleased with the new Dijon Tea, England's Glory, and it is likely to become very popular in the near future, as it is very free and should prove hardy.

Needless to say, large beds of seedlings of all kinds are on trial, as well as new varieties from home and continental raisers. Five new varieties with which Mr. Paul is especially pleased are H.P. Ben Cant, H.T. Lady Moyra Beauclerc (lake and silvery pink, very lasting), H.T. M. Lede (bright rose, with yellow base), H.T. Franz Deegen (a yellow Caroline Testout), and H.T. Mme. Edmée Metz (salmon-pink, mildew-proof, rather like Mrs. Edward Mawley).

Space will not allow me to describe a tithe of what I saw, and I have therefore only jotted

M. v. Leopoldii.—Very distinct, the flowers deep rose, the lip having a large deep maroon blotch at the base.

M. v. leucoglossa.—Sepals and petals pale rose, lip pure white.

M. v. superba.—This has dark rose-pink sepals and petals, the lower sepal streaked with red-purple near the base, lip large, carmine-rose, with a triangular purplish red blotch, banded with white at the base.

M. v. sanderiana.—The flowers of this are large, sepals rose, shading to white, the lateral two having crimson dotted lines near the base, the petals and lip rose, the latter having a blood-red blotch at the base.

M. v. memoria G. D. Owen.—A splendid form, flowers large and richly coloured, petals and upper sepal bright rose, lower sepals rose, with a broad bar of crimson-purple on their lower halves, lip rose, with a dark crimson-purple disc.

M. v. chelensis.—Very distinct. The flowers of medium size, sepals and petals rose, the two lower ones lined with purple at the base, the lip is rose, with large purple blotch at the base, with radiating

the plant then being transferred to a 5-inch pot, and thus developed two bulbs in 1902, one of them producing two young growths. The other one, and this the present season, 1903, developed three large bulbs, each producing three spikes, bearing in all forty-three blooms.

Now that the majority of plants have passed out of bloom they should be placed at the coolest end of the cool intermediate house (some growers place them in the cool house during summer). When this is done they should be put at the warmest and cosiest end, the ventilators not opened so as to cause draughts, and given sufficient water only to keep them plump and healthy until the young growths are well on the move. It is then necessary to repot, or it may be left until a later period when the young growths have further advanced and new roots issue from the base. The subject of the accompanying illustration was grown in peat moss and leaf-soil in equal parts, the whole being well mixed together. This *Miltonia* also grows well entirely in leaf-soil (if proper discretion is used in watering the plants), with one crock over the bottom of the pot, Fern roots laid to the depth of about an inch, and over these a thin layer of sphagnum moss. The leaf-soil should be pressed moderately firm, working in a few crocks among it, and finishing off with a layer of fresh sphagnum moss. A temperature of 60° by night and 65° to 70° by day throughout the year will grow *Miltonia vexillaria* and its varieties well. F. W. THURGOOD.



MILTONIA VEXILLARIA VAR. KAISERIN AUGUSTA IN THE GARDENS OF ROSSLYN, STAMFORD HILL, N.

own a few impressions of my visit to this home and birthplace of the queen of flowers. Worcestershire. ARTHUR R. GOODWIN.

ORCHIDS.

MILTONIA VEXILLARIA AND ITS VARIETIES.

FEW Orchids are more beautiful or more showy than *Miltonia vexillaria* and its numerous varieties. Many of the latter are very distinct and even showier than the species. The following are some of the most distinct:

M. v. alba is, as its name indicates, pure white, with the exception of a faint rose tinge at the base of the sepals and petals. *M. v. Queen Alexandra* has extraordinary large white flowers, the base of the segments very faintly tinged with rose.

M. v. cobbiana.—The sepals and petals are rose-pink, margined with white, lip large and pure white.

lines, dotted with purple and margined with white.

M. v. gigantea.—The flowers are very large, deep rich rose throughout, disc of the lip rather bright yellow.

The typical *Miltonia vexillaria* is not merely beautiful, but also most useful. It is a fine Orchid for exhibition, and suitable for cutting and arranging in vases or other decorative purposes. I have seen many dining-room tables magnificently decorated principally with this lovely flower. It is one of the freest to bloom, one of the easiest to grow, and never requires a high temperature, thus making it a most suitable Orchid for amateurs. The accompanying illustration represents a variety known as *Kaiserin Augusta*, a handsome form, the sepals and petals of which are deep rose, the two lower sepals being lined with purple at their base. The lip is large, deep rose with a large purple blotch at base, and margined with white. The illustration fully represents the remarkable way the plant increases when grown under suitable conditions. When bought, in a 3-inch pot, in July, 1901, it had two small bulbs with one lead. When growth commenced a double break was produced,

system of culture of the grower in question is as follows:—Early in October the cool houses are planted with Cabbages raised from seed sown the first week in the previous August, the land being manured and dug in the ordinary way. Little or no attention is necessary until cutting commences early in April, continuing until May, when all the crop has been disposed of. When we come to consider and realise the demand for, and the importance of a good supply of tender Cabbage so early in the year, we cannot wonder that the plebeian Cabbage is thus grown.

Immediately the Cabbages are disposed of, trenches are dug out 4 feet apart and 18 inches wide, into which some new soil and a moderate dressing of manure are placed, digging all together some time before planting. A double row of plants, at 10 inches apart, is planted in this trench. When the plants have established themselves and are well furnished with fruit, the ridge between the trenches may be levelled into these as a top-dressing for the plants. Heavy crops of fruit are secured in this way at comparatively small cost—watering, collecting, and marketing the fruit being the chief items of labour. In December the

KITCHEN GARDEN.

TOMATO CULTURE UNDER GLASS WITHOUT FIRE HEAT.

ACRES of glass are devoted to Tomato culture, with no artificial heat, in the islands of Guernsey and Jersey, but the conditions there are more favourable than is the case in Britain. Still, this system is carried out on a large scale in many of the suburbs of London. I have visited one where twenty houses, covering ten acres of land, were utilised by Tomatoes. Each house covers half an acre of land, ten of them are heated with hot water, and ten not heated at all. Both the heated and unheated houses produce two crops a year; the heated ones producing two crops of Tomatoes, and the unheated ones a crop of Tomatoes and one of Cabbages. It will be news to many of my readers, I have no doubt, to hear that Cabbages are grown under glass by the acre in England. The

Tomatoes will be almost over, and it will be time again to plant the Cabbages. The reason for adopting the plan of growing in trenches is that deep digging and a change of soil for the crop are thereby assured; the ground that forms the trenches one year will form the ridges next, and so on. The stronger the plants when planted out at the end of April and early in May the better will be the result. Seeds are sown the last week in January. Comet is the only variety grown at the establishment in question.

The method adopted in the ten houses, which were heated, covering 5 acres, is different. Here all the plants are grown in pots, the first fruits ripening from April until June. The pots are then filled with other strong young plants, and they in their turn will yield heavy and remunerative crops until late in the autumn or early winter, when it is no longer remunerative to grow English Tomatoes by virtue of the heavy importations of fruit supplied from abroad at a cheap rate. The seed for the earliest crop is sown the last week in October, the plants are grown during the winter in 5-inch or 6-inch pots, and potted into their fruiting pots (12-inch) about the middle of February. The seeds for supplying the second lot of plants, planted at the end of June, should be sown the first week in April. All are grown on the single-stem system, the stems being stopped when 4 feet high. The reason for this is that the best fruit is formed on this part of the stem.

When the same crop follows continuously upon a limited area of land it is not surprising that growers are, before long, confronted with land sickness, and as a consequence the plants show diminished vitality, are liable to disease, and consequently unremunerative; then we see the advantage of the pot system of culture, where fresh soil can be given to each plant. Two heavy crops during the summer can also be had from pot plants, and this cannot be easily accomplished under the planting-out system. An abundance of water is most essential to successful Tomato culture under glass, and therefore an ample supply must be secured. One economical method is to build a tank at the lower end of the block of houses into which all the rain which falls on the roofs may drain. A tower will have to be built (on which to fix the tank), high enough to give the necessary pressure for expeditious watering. A pump worked by hand, or by whatever power decided on (this will depend on the size of the establishment), would have to be fixed for pumping the water to the top of the tower. It need scarcely be said how much better in every way, and how much more conducive to the success of garden crops of all sorts, is rain than spring water. Therefore, means should be provided to save all that falls upon the roofs. When this supply is inadequate, and no other source available, a well must be sunk.

A. P. H.

SOCIETIES.

NORFOLK AND NORWICH ROSE SHOW.

THIS annual fixture, held in the grounds of Carrow House and Carrow Abbey, by permission of the Misses Colman and Professor J. Stuart on the 2nd inst., was a decided success. The weather was all that could be desired for such an event. Four large tents were requisitioned for staging the exhibits, and these were well filled. The Rose classes were in many cases not so good as one could have wished, but, taken collectively, the blooms were much better than those staged the previous year.

The Colchester growers—Messrs. B. R. Cant and Sons, D. Prior and Son, and F. Cant and Co.—secured all the prizes in the order named in the chief open classes. The Rev. A. Foster-Melliar of Sproughton, the Rev. A. L. Fellowes of Shotesham, and the Rev. John Fellowes of Bunwell maintained the reputation of the clergy as lovers of Rose culture and successful exhibitors. The Rev. Foster-Melliar came out well as a prize winner, and likewise secured the National Rose Society's medal for the best bloom other than a Tea with a fine bloom of the new Lady Moyra Beauchamp. Mr. Reginald Steward of Saxlingham was the fortunate medal winner for the best Tea with a good bloom of Mrs. Edward Mawley.

Miss Penrice of Wilton House again secured the silver challenge cup for the best twenty-four distinct varieties grown in Norfolk. Good stands which secured prizes in other classes were set up by Mrs. H. S. Patten (Cringford), Colonel Rous (Westead), Major Danby, and Messrs. T. C. Blofeld and B. E. Fletcher.

Miscellaneous cut flowers made the boldest display of all, and the herbaceous flowers were in grand condition. The premier stand in this section was a collection of forty-eight bunches, staged by Mr. George Davison, gardener at Westwick House. The massive bunches were grandly arranged, and the freshness of the blooms was much commented upon by the spectators. The same exhibitor was also first for twelve bunches of flowering shrubs. Mr. P. Wright, gardener to W. J. Birkbeck, Esq., Stratton, Strawless, was also a winner in the herbaceous section, and a dozen bunches of the clear-eyed Sweet Williams, from the same grower, were admired by the old-time florists. The scholars at Crooks Place Board School, Norwich, who have a portion of the public park, which, under the able guidance of that enthusiastic gardener and botanist, Mr. Edward Peake, grow many charming blooms, had made an effective display.

Another rather unique exhibit, labelled "Not for competition," was a miniature rock garden of British native plants of low growth made by Mr. H. Dobbie, Pinebanks, Thorpe. Mr. Dobbie is a keen follower of native botany and plants, and his Orchids, Grasses, and Mosses, all locally grown, were most interesting. Pot plants filled another tent, and some grand Ferns and Coleus, staged by Mr. W. Rush, gardener to F. P. Hinde, Esq., Thorpe, were worthy of comment. Fuchsias, Begonias, Pelargoniums, Coleus, and Caladiums came from the gardens of Colonel Rous, Dr. Osburne, E. G. Buxton, Esq., T. Chaplin, Esq., T. Glover, Esq., H. Skelton, Esq., and W. J. Birkbeck, Esq.

In the fruit section, Mr. W. Allan, Gunton Park, was first for a collection of fruit, first in all four classes for Grapes, first for Melons, and first for Peaches. Mr. P. Wright, gardener to W. J. Birkbeck, Esq., was first for Strawberries and Nectarines. Mr. T. Glover, gardener to Mr. Craddock, was also a winner for Grapes. Mr. Fitch, Dunston Hall Gardens, was also a meritorious exhibitor in this section as well as flowers.

Vegetables were not quite up to the standard, though fairly good Peas, Cauliflowers, Cucumbers, and Lettuces were staged, some of the most notable prize winners here being Colonel Rous, G. F. Buxton, Esq., Mrs. Lubbock, Major Petre, F. P. Hinde, Esq., F. Martin, Esq., and Mr. F. Carrington.

Messrs. Daniels Brothers, Limited, Norwich, put up a charming bank of flowering and foliage plants, containing new and choice specimens of Heliotropes, Hydrangeas, Crassulas, Palms, Ferns, &c.

Hobbles, Limited, Dereham, made one of their pretty displays. In the centre of their stand they had formed an arch of Dorothy Perkins Rambler Rose, surrounded at the base by the newest H.T.'s. There were also Sweet Peas, Pelargoniums, and other amateurs' flowers in profusion.

The receipts for admission reached £155 2s., over £50 in advance of last year.

PORTSMOUTH.

ON the Clarence Pier, Southsea, the Portsmouth Rose show was held on the 1st inst. under favourable circumstances, and was successful in every respect. If Roses were not numerous they were good in quality.

The principal class was that for forty-eight distinct single blooms. Three competed for the substantial prizes offered. Messrs. D. Prior and Sons, Colchester, won the coveted award somewhat easily. Beattie Brown, La France, Margaret Dickson, Gustave Pigeau, Mme. G. Lisset, Maman Cochet, and Marquise Litta were the best. Mr. G. Mount, Canterbury, was second with smaller yet richly-coloured blooms. Messrs. Rogers and Son, Southampton, were third.

For twenty-four trebles, distinct, Messrs. Prior again won with an even set of blooms. Especially good were A. E. Williams, Caroline Testout, Mrs. John Lasing, Marquise Litta, Helen Keller, Kaiserin Augusta Victoria, Ulrich Brunner, Antoine Elvire, and Souv. d'un Ami. Mr. Mount was second.

For twelve Teas, distinct, Messrs. Prior were unapproachable, so even and good in quality were their blooms, particularly Devonienita, Edith Gifford, Souv. d'Elise Vardon, Medea, The Bride, and White Maman Cochet. Mr. Mount was second, and Messrs. Rogers were third.

For twelve H.P.'s, dark, Messrs. Prior again won, staging A. E. Williams and Prince Arthur in capital form. For twelve H.P.'s, light, Messrs. Prior also won with extremely fine blooms of Mrs. J. Lasing and Marchioness of Downshire.

For twelve Teas or Noisettes, Messrs. Prior could not be beaten, so superior were their blooms of Mrs. E. Mawley, Ernest Metz, The Bride, and White Maman Cochet. Mr. Primall, gardener to Mrs. Cecil, Ryde, was second in the last-named class with creditable flowers.

Garden Roses were grandly staged by Mr. G. Ellwood, gardener to W. H. Myers, Esq., M.P., Swanmore Park, Bishop's Waltham, in the class for eighteen bunches distinct. The names were Papa Gontier, Mme. Eugène Besal, Leuchstern, Mme. Planter, Gustave Regis, Common China, Gloire de Mousseaux, Cheshunt Scarlet, Follenberg, Felicite Perpetue, Moschata alba, Gloire des Polyanthes, Wallflower, Queen Alexandra, Psyche, Euphrosyne, and General Butriei.

Mr. Druce, gardener to J. R. Winthrop, Esq., Ryde, was a good second, staging Macrantha extremely fine.

Hardy cut flowers were grand. Six competed for twelve bunches, distinct. Mr. Leek, Burstead, Isle of Wight, was first, Mr. Ellwood second, and Mr. Prince third. Bouquets were beautifully displayed by Mr. E. Willis, florist, Southampton, who won for both ball and bridal bouquets.

READING ROSE SOCIETY.

WE hope that this newly formed society has begun a prosperous career. Its first show, in spite of the weather of the preceding few weeks, was a very interesting and pretty one, and the sunshine brought together a large company. We congratulate the hon. secretary and treasurer, Mr. W. L. Walker, upon the success of his endeavours. The judges were: Open classes, Mr. Dickson, Newtownards, County Down, and Mr. Prince, Longworth, Berks; amateur class, the Rev. F. Page-Roberts, Stratfieldsaye Rectory, and Mr. Colin

Romaine, The Priory, Old Windsor; decorative class, Mrs. Murray, Perival, Ryde, Isle of Wight, and Mr. Woodward.

In the local classes the exhibits were good throughout, some of them being very fine. Mr. R. C. Mount of Laleham secured first place in the local amateurs' class, with a beautiful lot of blooms, including Claire Jacquier, Turner's Crime Rambler, the old Almede Vibert, Felicite Perpetue, and Reine Marie Henriette. Mr. Dunlop of Malmesbury, Berks, was a splendid second, the former exhibit being a little more artistically arranged.

In the open class for nurserymen, Messrs. Alexander Dickson and Son gained the blue ribbon with some lovely blooms, among which were Mildred Grant, Beale Brown, Caroline Testout, Mrs. W. J. Grant, and Souv. d'un Ami, President Carnot.

The Rev. F. Page-Roberts of Stratfieldsaye Rectory was awarded first honours for the best Rose in the local class with Comtesse de Nadailac.

Mr. T. Rigg of Caversham was a very successful exhibitor. With four entries he carried off four firsts and two seconds. In Class 3 (open to all), for twelve single trusses, as a variety, the judges had no hesitation in placing him as Beattie Brown, one of his flowers in this class, also gave the National Rose Society's medal for the best bloom in a show. In Classes 6, 7, and 8 Mr. Rigg also distinguished himself, carrying off highest honours with equally beautiful blooms.

Mr. W. Conway Jones was first in the amateur class for twenty-four distinct single trusses, and so was he given by Mrs. G. W. Palmer. His was a very brilliant display, comprising the leading varieties. The cuttings were a fair feature, but a little more artistic taste might have been displayed in this direction. The baskets and vases of flowers were attractive; this is a branch which should be encouraged. Flowers so arranged look far better than those displayed on boards.

Among the honorary exhibits must be mentioned that of Mr. Edward Hudson, The Deansy Garden, Sonning, garden Roses, arranged in "Munstead" bowls and glass. The variety Killarney was very beautiful.

Messrs. Cuthbush and Sons' display of Carnations, Marguerites, Verbenas, Palms, &c., was also a new feature in one of the tents. Mr. Robert Symonds of Birmingham also had a splendid exhibit of Carnations tastefully arranged.

During the afternoon Mrs. Benyon (the president) distributed the cups, and on the proposition of the Rev. H. Chasles, seconded by Mr. Strange, was accorded a hearty vote of thanks.

RICHMOND HORTICULTURAL SOCIETY.

THIS society held its twenty-ninth exhibition in the Deer Park on the 1st inst., and, favoured with pleasant weather, it is not surprising that the show, from the horticultural point of view at least, was an unqualified success. The management of the exhibition was in the capable hands of Mr. C. R. King, the honorary secretary, and a capital of practical working committee, which left nothing to be desired.

Forty-eight Roses, distinct, three blooms of each, which the Gunnersbury Park Challenge Cup, with £10 money, was the first prize. This was secured by Messrs. B. R. Cant and Sons, Colchester, with a fine lot of blooms, the best being Ulrich Brunner, Ellen Willmott, Margaret Dickson, Killarney, Medea, Gustave Pigeau, Beattie Brown, and others. The second prize was secured by Messrs. D. Prior, also of Colchester. Messrs. Frank Cant and Co. of Bralwick Rose Gardens, Colchester, took the third prize.

In the class for twenty-four varieties, three blooms of each, Messrs. Frank Cant and Co. took the leading place, having notable blooms of Souv. de Pierre Notting, Souv. d'un Ami, President Carnot, Mrs. Grant, and Cleopatra.

Messrs. Frank Cant and Co. also secured the leading place for twelve varieties, three blooms of each, some of the best flowers including Tennyson, Mildred Grant, Kaiserin Augusta Victoria. For twelve blooms of a variety only, Messrs. Frank Cant and Co. came first, staging Frau Karl Druschki in capital form, the second prize being awarded to Messrs. D. Prior and Sons, Colchester, who had fine blooms of Mme. Gabriel Lisset.

For twelve Tea Roses of one variety Messrs. D. Prior and Sons and Frank Cant and Co., both of Colchester, took first and second places respectively, each firm staging Souv. de S. A. Prince in capital form. In the amateur class for twenty-four Roses, distinct, Mr. W. C. Romaine, of Windsor, was placed first, having Margaret Dickson, Gustave Pigeau, and Beattie Brown very good. The same exhibitor also secured first prize in the class for twelve blooms distinct.

A splendid group of cut blooms of Malmesbury Curlew came from Mr. J. P. Morgan, Dover House, Rochester (gardener, Mr. McLeod). The varieties were Old Blush, Princess of Wales, and the rich crimson kind, Mr. E. Jones. The yellow Cecilia was also staged, the entire post attracting much attention throughout the day.

Of exhibits of the amateur class we were strongly impressed with that of the Rev. A. W. Owen, Old Palace, Richmond, who showed Lillium auratum in pots as fine as we have ever seen it.

Hardy flowers in the amateur classes were finely shown by the Earl of Dysart, Peterham, and by Mrs. E. L. Fitch, Peterham House, and took first and second prizes respectively. The class was for twenty-four bunches of hardy herbaceous things, bulbous plants being admissible. The usual seasonable flowers were well shown, and in some bunches.

Hardy flowers were extensively staged by Messrs. I. I. Ware, Limited, Feltham, who had masses of Campanula Moerhousii (pure white), Delphiniums, Oriental and other Poppies, Water Lilies, Lilies, &c. In another group the same firm staged an admirable lot of Roses in small pots.

In the classes for vegetables, usually a strong one at Richmond, little competition was offered to Lord Aldborough.

istree (gardener, Mr. E. Beckett), who took the first prize for a collection of vegetables both in the open class and in that for the best display of vegetables, nine distinct kinds, forced by Messrs. Carter and Co., High Holborn.

The group of Orchids from Sir F. Wigan, Bart., Clare town, East Sheen, contained excellent examples of Cattleyas, Laevocallis, Odontoglossum crispum, and others, with specimens of the Rex section as of a very suitable margin.

For a collection of fruit, not less than nine dishes, the first prize is Lady Max Wachtel's Challenge Cup and £3 10s. a money, was taken by Earl Dysart, Ham House. For Black trapes, Sir F. Swinford Eady, Weybridge (Mr. J. Locke, gardener), was first, the same exhibitor taking the lead in White Grapes. The same exhibitor also took the leading place for Peaches and Nectarines.

Mr. C. Fordham, Twickenham, had a very fine group arranged in the grass for effect.

Mr. J. Russell, Richmond, had a large exhibit of Crotons, Juncos, Aralias, Dracenas, Palms, Ixoras, and such-like things in profusion, occupying a large space. In the open he same firm showed a most complete arrangement of the tree Ivy, green and variegated, silver and gold in great variety.

Mr. Isoton, Putney, showed Palms, Lily of the Valley en masse, with Hydrangea paniculata grandiflora. A capital group.

A group of Palms was a most commendable item from Mr. J. Bruckmans, Twickenham, giant Kentias and Arecas prevailing, interspersed with Acers and other plants.

Messrs. W. Fromow and Sons, Chiswick, had a very telling group of Japanese Acers, with Bamboos, Aralia pentaphylla, and a fine lot of Kalmia latifolia laden with delicate pink flowers in profusion.

Some magnificent specimen Fuchsias were shown by Mr. Sallows, Twickenham, the fine plants averaging some feet in height, and perfect in foliage and blossom.

Mr. W. Thompson, Sheen Nurseries, Richmond, had a group of Crotons, Palms, Acers, Pandanus Veitchi, Spiraea almita, with Plumbago capensis, and other things.

Mr. Leopold de Rothschild, Gunnersbury, sent fine examples of blue Water Lilies, such as Nymphaea gigantea and N. W. Stone, the handsome flowers being much admired.

WINDSOR AND ETON ROSE.

THROUGH the gracious permission of His Majesty the King, the society held its twelfth annual show on the slopes at Windsor Castle on the 4th inst. It would be difficult to imagine a more suitable place in which to hold a flower show than this beautiful part of the grounds at Windsor. The classes were not so well filled as formerly, owing, no doubt, to the indifferent season, which caused the society to alter the date a week later.

There was keen competition in the open class for the Queen's Cup, forty-eight distinct single trusses. Messrs. Harkness and Co. were a splendid first, with grand blooms.

La France, Le Havre, Alfred K. Williams, Jean Ducher, Mildred Grant, Star of Waltham, Helen Kellar, and Mrs. J. King. The latter bloom was given the silver medal for the best one in the show. Messrs. D. Prior and Sons were a good second with splendid Kaiserin Augusta Victoria, Mrs. J. King, Marie van Houtte, and Ulster; third, Messrs. B. R. Cant and Sons.

Eighteen Teas distinct: Messrs. D. Prior were first with a even stand. Souvenir de Pierre Notting, The Bride, nocente Pirola, Cleopatra, and Mrs. E. Mawley were a best blooms. Messrs. Frank Cant and Co. were second with good Rubens, The Bride, and Mme. Ravary; third, Messrs. B. R. Cant and Sons.

For twelve distinct (three trusses of each): Messrs. Alex. Jackson and Sons were first with a grand lot of well-built flowers. Mildred Grant, Mrs. J. Laing, and Robert Scott, are splendid. Messrs. Harkness and Co. second, with red Beattie Brown, Caroline Testout, and Mrs. J. Laing. Messrs. D. Prior and Sons were third.

For twelve single trusses of any H.P. or H.T., Messrs. Frank Cant and Co. were first with a lovely stand of Mildred Grant; second, Messrs. A. Dickson and Sons with Beattie Brown; third, Mr. Thomas Riggs with the same variety.

For twelve single trusses of any Tea or Noisette, Messrs. Prior and Sons were first with a splendid lot of Maman Cochet. There was only one entry in the class for eighteen inches of garden Roses, and this was won by Charles Turner Slough, with a very attractive exhibit in which were Mrs. F. Ducher, Mme. A. Chateau, Marquis de Salisbury, me. Charles, W. H. Richardson, and L'Idéal.

AMATEURS.

For thirty-six distinct single trusses: First, Rev. J. H. Pemberton, with a nice even lot, including Caroline Testout, Mrs. W. J. Grant, Tennyson, Killarney, Duchess of Albany, and Laurence Allen; second, Mrs. Hayward; and Mr. W. C. Romaine third.

Six single trusses, one kind: First, Rev. J. H. Pemberton, with Beattie Brown; second, Mrs. Hayward, with Her Majesty; third, Mr. G. A. Hammond.

Twelve Teas or Noisettes: First, Mr. A. Munt, with well built flowers of good colour, including Maman Cochet, Cleopatra, Princess Beatrice, and Anna Olivier; second, Mrs. Hayward; third, Mr. G. A. Hammond.

Six distinct, three of each: First, Rev. J. H. Pemberton; second, Mr. F. Wellesley; third, Mrs. Hayward.

Twelve bunches of garden Roses: First, Rev. J. H. Pemberton; second, Mrs. Irving.

Twenty-four distinct single trusses: First, Mr. R. Foley Hobbs, with good Beattie Brown, Maman Cochet, Alice Randsall, and Ulster; second, Mr. F. B. Gabriel; third, Mr. C. Romaine.

Twelve distinct single trusses: First, Mr. F. Wellesley, with a grand stand of White Maman Cochet, Caroline Testout, and Maman Cochet; second, Mr. G. A. Hammond; third, Mr. R. Foley Hobbs.

LOCAL CLASSES.

In the class for eighteen distinct single trusses (the Windsor Cup is given to the winner of this class), Mr. W. C.

Romaine was first, and he having won it three successive times it now becomes his property. He had a splendid stand, including Mrs. J. Laing (good), Maman Cochet, Duke of Albany, and A. K. Williams; second, Mr. J. B. Fortescue; third, Mr. A. F. Govett.

For twelve distinct single trusses: First, Mr. A. Munt; second, Mrs. E. Thomas; third, Mrs. Bulteel.

For six trusses of any H.T. or H.P., Mr. A. L. Wigan was first with Kaiserin Augusta Victoria; second, Mr. J. B. Shackie, with same variety; third, Mr. A. Munt, with Beattie Brown.

For six trusses, any Tea or Noisette, Mr. A. Munt was first with White Maman Cochet (splendid); second, Mr. J. B. Fortescue, with Mme. Cusin; third, Rev. J. B. Shackie, with Anna Olivier.

For six bunches of garden Roses, distinct: First, Rev. J. B. Shackie, with a charming lot, including Crimson Rambler, W. Allen Richardson, and Macrantha; second, Mrs. Irving; third, Mr. A. Green.

For the best display of cut Roses, Mrs. Irving was first with a very charming display, and won the Duchess of Sutherland's Cup outright for this; second, Mr. F. Baxter; third, Mr. W. H. Austin.

For best basket of Roses, Miss Violet Gee was first with a pretty arrangement; second, Mrs. Baxter; third, Mrs. Green.

For best dinner-table decoration, Mrs. Davies was first with a charming arrangement of Iceland Poppies and Gypsophila.

For a group of plants, Mr. A. F. Govett, took the leading award in this class with a nicely arranged group of Crotons, Francoa, Schizanthus, Caladiums, &c.

FRUIT.

was very poorly represented, but vegetables were very plentiful and of good quality. Messrs. Wallace and Co. had a grand display of hardy flowers. Messrs. Jones and Son, Shrewsbury, had charming Sweet Peas arranged with Gypsophila and Grasses. Mr. Charles Turner, Slough, had a very extensive display of hardy flowers, Roses, and Fuchsias. Messrs. Litt and Son, Windsor, had a pretty arrangement of floral designs.

HARROW HORTICULTURAL SOCIETY.

FEW people are aware that the Harrow Horticultural Society was established so long ago as 1853, yet such is the case, and it is still doing good work in the neighbourhood for the encouragement of gardening. The annual exhibition was held on Tuesday last (July 7), in the grounds of Dudley Lodge, by kind permission of J. MacAndrew, Esq., and although the gale of the day before had damaged some of the flowers there was a very good display of Roses especially. Messrs. D. Prior's first prize exhibit of thirty-six blooms, was as good as we have seen this season. In addition to the numerous Rose classes, which were well filled, miscellaneous hardy flowers, fruits and vegetables, added to the attractiveness and interest of the show. One tent was entirely devoted to Ladies' exhibits, the chief of which were those competing in the class for dinner-table decoration. There were no less than ten displays of this description, and, being unusually well arranged, they were really one of the best features of the show. At the lunch given to the committee, judges, and other officials, Mr. Lewis Pawle said how much they were indebted to Mr. E. Mawley and Mr. George Paul for their valuable help on many occasions. Several of the visitors spoke of the great pleasure it gave them to visit the Harrow Show, where, thanks to the efforts of Dr. A. H. Williams, Mr. F. Spencer (honorary secretaries), and Mr. Lewis E. Pawle (honorary treasurer), everything worked so well, and they met with so hearty and hospitable a reception. Mr. Mawley referred to the practice of mossing the boxes instead of using green painted lids, and he was glad to see that it was disappearing. He also made the suggestion (which we think the committee would do well to carry out), that this society should be called "The Harrow Rose and Horticultural Society."

OPEN CLASSES.

Thirty-six Roses, distinct: First, Messrs. D. Prior and Son, Colchester, with an excellent lot. Beattie Brown in this stand won the National Rose Society's silver-gilt medal for the best bloom in the show, given by Dr. Williams. Other lovely blooms in this exhibit were Mildred Grant, White Maman Cochet, Prince Arthur, Souv. de Pierre Notting, Mrs. J. Laing, and Robert Scott. Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester, were second. Frau Karl Druschki, Tennyson, General Jacqueminot, Mrs. J. Laing, and Mme. de Watteville were the best blooms. The third prize fell to Messrs. B. R. Cant and Sons, The Old Rose Gardens, Colchester. Comte de Raimbault, Mrs. Edward Mawley, and Souvenir d'Elise were the best. The Harrow Horticultural Society's Jubilee Challenge Cup, presented by the Ladies of Harrow (to be won three years in succession), goes with the first prize. Messrs. B. R. Cant and Sons won it in 1902.

Twelve Roses, distinct, Tea or Noisette: First, Messrs. D. Prior and Son, Colchester, with a very pretty stand that included Jean Ducher, Mrs. E. Mawley, The Bride, Maman Cochet, Golden Gate, and Ethel Brownlow, all good. Second, Messrs. Frank Cant and Co., Colchester, with Mrs. Edward Mawley, Lady Roberts, Ethel Brownlow, and Comtesse de Nadailac in really good condition. Osmund G. Orpen, Esq., West Bergholt, Colchester, was third, Mme. Hoste, Cleopatra, and Bridesmaid being finely shown. There were several more entries in this class.

Twelve bunches of garden Roses, distinct: Messrs. Paul and Son, Cheshunt, were the only exhibitors, and won the first prize. Camoens, Marquise de Salisbury, Mme. Ravary, Gustave Regis, and Liberty were very pretty bunches.

AMATEURS.

Twenty-four Roses, distinct: First, E. B. Lindsell, Esq., Bearton, Hitchin, who thereby won the cup given by Lewis S. Pawle, Esq. Comtesse de Nadailac, Beattie Brown, La France, Mme. Cusin, Mrs. J. Laing, Mrs. Grant, and S. M. Rodocanachi were the best of a beautiful lot. O. G. Orpen,

Esq., West Bergholt, Colchester, was second with an exhibit of less uniform quality. The best blooms were Mme. Eugene Verdier, Bridesmaid, White Maman Cochet, and Mildred Grant; third, E. Mawley, Esq., Berkhamstead, whose finest flowers were Mrs. Grant, Marquise Little, and La France.

Twelve Roses, distinct, not open to exhibitors in the preceding class: First, Arthur Munt, Esq., Hedgerley, Slough, with good blooms, the pick of which were Mrs. Grant, Maman Cochet, and La France. W. G. Adcock, Esq., The Briars, North Finchley, was second, Gustave Piganeau and Captain Hayward being finely shown; third, G. A. Hammond, Esq., Burgess Hill, Sussex. His Killarney was a lovely bloom.

Twelve Roses, distinct, Tea or Noisette: First, Rev. F. R. Burnside, Stanbridge Rectory, Essex. White Maman Cochet, Mrs. Edward Mawley, Muriel Grahame, and L'Innocence Pirola were the best blooms in a fairly good exhibit. Osmund G. Orpen, Esq., was second with Mme. Hoste, Catherine Mermot, and Medea as the best; third, Arthur Munt, Esq., Hedgerley, Slough. Mme. Cusin was the best bloom.

MEMBERS OF THE SOCIETY.—GARDENERS' DIVISION.

Twelve Roses, distinct: First prize and National Rose Society's silver medal were won by Lewis S. Pawle, Esq. Antoine Riviere, Beattie Brown, Kaiserin Augusta Victoria, and Maman Cochet were the best blooms. Dr. H. A. Williams, Rotorua, Harrow, was second. Mrs. Sharmar Crawford, S. M. Rodocanachi, Margareth Appert (a well-formed, large, rose-coloured bloom), and Maman Cochet were his finest flowers; third, J. R. Cater, Esq., Kaiserin A. Victoria and Medea both being good.

Six Roses (distinct), not open to exhibitors in preceding class: First, Frank Spencer, Esq., with some beautiful blooms. One of Mildred Grant on this stand won the National Rose Society's silver medal for the best Rose in members' classes. White Maman Cochet, Clara Watson, Tennyson, and Lady Clamorris also were well shown. Second, Arnold Mitchell, Esq.; third, L. R. W. Forrest, Esq.

Six Roses, Tea or Noisette: First, Frank Spencer, Esq., who again showed well, Jean Ducher, White Maman Cochet, and Mrs. Edward Mawley being excellent; second, Dr. H. A. Williams, whose blooms were rather smaller. Catherine Mermot, Bridesmaid, and L'Innocence Pirola were, however, all well shown; third, J. R. Cater, Esq.

Four Roses of any one variety: First, Frank Spencer, Esq., with very good White Maman Cochet; second, Arnold Mitchell, Esq., with Caroline Testout; third, Lewis S. Pawle, Esq., with Mrs. Sharmar Crawford.

Three vases of Roses, three blooms of each: First, Frank Spencer, Esq.; second, A. S. Hargreaves, Esq.; third, Dr. A. H. Williams.

Four bunches of garden Roses: First, A. S. Hargreaves, Esq., whose best vaseful was W. A. Richardson (beautiful colouring); second, Dr. A. H. Williams; third, S. Gardner, Esq., who showed rugosa and other single Roses.

AMATEUR MEMBERS.

Six Roses, not more than two of one sort: First, A. Bryans, Esq., H. Schultheis and Killarney being the best; second, Mrs. Burton. Prince Camille de Rohan was a lovely bloom, also Cleopatra; third, Mrs. O. G. Holmes.

Vase of Roses: First, A. J. Obermayer, Esq.; second, Captain Johnson.

COTTAGERS (MEMBERS ONLY).

Six Roses, distinct: First, Mrs. Whitfield, with several good flowers; second, Mr. W. Mower; third, Mr. J. Allen. Group of plants: First, Mrs. Charles (gardener, Mr. T. Norman).

Four Begonias: First, A. S. Hargreaves, Esq., with very creditable plants.

CUT FLOWERS.

Collection of cut flowers (prizes given by Lady Northwick): First, S. Gardner, Esq., who showed Iceland Poppies, Gallardias, Eschscholtzias, Sweet Peas, and other bright flowers; second, A. S. Hargreaves, Esq., whose group included some English Irises, Lychnis chalcidonica, Canterbury Bells, &c; third, Mrs. Charles.

Twelve bunches of cut flowers: First, Rev. E. C. E. Owen; second, E. Graham, Esq.; third, Lewis S. Pawle, Esq., all very bright.

Six bunches of cut flowers: First, E. W. Howson, Esq.; second, G. B. Innes Hopkins, Esq.; third, Arnold Mitchell, Esq.

Twelve bunches of Sweet Peas, distinct: First, Lewis S. Pawle, Esq., the best varieties being Miss Willmott, cocinea, and Duke of Westminster; second, J. A. Stuart, Esq., with a very pretty lot also; third, Mrs. Charles.

Six bunches of Sweet Peas: First, A. E. Carlyon, Esq.; second, G. B. Innes Hopkins, Esq.; third, E. W. Howson, Esq.

The first prize for six spikes of Delphiniums was won by Arnold Mitchell, Esq. Lewis S. Pawle, Esq., was second; and E. Graham, Esq., third.

Mr. Henry Eckford, Wem, Shropshire, showed an admirable display of Sweet Peas in many lovely varieties. Messrs. Paul and Son, Cheshunt, sent hardy flowers; Mr. J. Lion, Stanmore, Middlesex, showed Caladiums, Delphiniums, and New White Royal Pelargonium Mrs. J. Lion.

Messrs. James Taylor and Sons, St. Hilda's Nursery, Harrow, exhibited miscellaneous plants; Messrs. W. Cutbush and Sons, Barnet Nurseries, and Highgate, N., showed an attractive display of Sweet Peas, Roses, and Carnations, both Malmesdon and tree varieties. There were numerous exhibits of fruits and vegetables.

LADIES' DIVISION.

Dinner-table decoration.—The first prize was won by Miss Evelyn MacAndrew with a very pretty arrangement of pink Gladioli, pink Centaureas and Gypsophila. Miss O'Neill was second with a simple—yet unusually effective—table of light purple Sweet Peas in the centre, and dark ones at each corner. The third prize was won by Mrs. Arnold Mitchell, who used Cornflowers, Teasel, Gypsophila, but there was

a preponderance of greenery. There were numerous other entries.

Mrs. Peringer was first for an arrangement of flowers in a vase, showing Roses.

Miss Evelyn MacAndrew won the first prize for a collection of cut flowers, arranged in a basket, with English Irises and Scabious, all of various shades of purple.

In the class for an arrangement for centre of dinner-table, Roses only, (open to amateurs within 25 miles of Harrow), Miss Beatrice Langton was first, with a lovely display of Apricot and yellow-tinted flowers.

ROYAL HORTICULTURAL SOCIETY.

THERE was a very small meeting of the society on the 7th inst., but the groups shown were interesting, and in some cases very beautiful.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), Messrs. Charles T. Drury, Geo. Nicholson, John Green, J. F. McLeod, James Huisson, J. Jennings, Wm. Howe, G. Reuthe, Chas. Dixon, H. J. Cutbush, Geo. Gordon, H. J. Jones, R. W. Wallace, Charles E. Pearson, Charles E. Shea, W. P. Thomson, E. H. Jenkins, and Amos Perry.

Hardy flowers were well shown on this occasion, some important groups being staged by the leading growers of these plants.

Mr. M. Prichard, Christchurch, Hants, set up a good lot of perennials, among which we were pleased to note the somewhat scarce double white sweet-scented Campon, *Lychnis vespertina plena*, good masses of *Alstromerias*, *Galegas*, *Delphinium Belladonna*, *Potentillas* (very fine), *Lychnis haageana*, many *Gallardias*, *Lilium Brownii*, *Water Lilies*, &c.

Messrs. T. S. Ware and Co., Feltham, made a speciality of *Delphiniums* on this occasion, and of these showy July flowers there was certainly a goodly array, quite informally arranged.

Some fine *Eremuri* were also shown, among which we noted *Sybil*, orange-yellow, said to be a cross between *E. Bungei* and *E. Warei*, and *E. Wycliffe*, a strong yellow, broad in petal, and said to result from the crossing of *E. Warei* and *E. Olize*.

Crotons from Mr. H. B. May, Edmonton, were in some 120 distinct varieties, and in their groundwork of Maidenhair Fern made a fine display of colour. The plants were mostly small examples in 5-inch or 6-inch pots and quite representative of all sections of this fine decorative group.

Messrs. J. Peed and Sons, Norwood, showed a group of *Carnations*, *Malmsons*, and border varieties in pots, intermingled with each other.

Carnations were also finely shown by Messrs. W. Cutbush and Son, Highgate. Of those shown we noted *Monk*, a very fine scarlet; *Maggie Hodgson*, crimson; *Valleta*, bluish; *Thora*, also bluish; *Don Juan*, crimson, fine petal; *Queen of the Isles*, yellow ground; and others.

Messrs. William Bull and Sons, Chelsea, showed a beautiful lot of *Anemochilus* and allied things, as *D. vestina*, *Hemaria*, *Goodyera*, &c. Of these *Dosinia marmorata* was very fine. The group was surrounded by small plants of *Eugenia myrsiphylla*, a dainty shrub-like plant very dwarf in stature.

Messrs. Wallace and Co., Colchester, showed, as usual, hardy cut flowers in great quantity. Some of the things were exceedingly showy, notably *Eremurus Bungei*, a rich yellow-flowered plant. *Iris laevigata* in variety was also in strong force, and so too *Iris spuria alba*, &c. The *Calochorti* from this firm are always very beautiful, and from this standpoint there is no variation. *Liliums* were good and numerous, particularly so being *L. Brownii*, *L. tigrinum* in variety, *L. azovizianum*, all very beautiful. *Iris Monnierii*, rich yellow, is also a fine border plant now in season.

The *Roses* from Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, were a capital lot, especially good being the pure white *Frau Karl Druschki*. Mrs. Edward Mawley, Mildred Grant, Papa Lambert, deep pink of exceptional size and form; *Duchess of Portland*, fine creamy white; Mrs. B. R. Cant, deep rose-pink; and *Souv. de Catherine Guillot*, deep apricot, were among the best. *Blush Rambler* was also finely shown, and, indeed, is one of the best of its class.

Sweet Peas from Messrs. J. Cheal and Sons, Crawley, were very good, and included the leading sorts now grown.

Hardy flowers from Mr. E. Potten, Cranbrook, Kent, included *Inula glandulosa*, *Potentillas*, *Delphiniums*, *Iris Monnierii*, *Gallardias*, *Campanulas*, &c. *Iris ochroleuca* was also very fine.

Small Cactaceous plants and allied things were again shown by Mr. E. Anker, Baker Street. There were many species grouped together.

Verbena Warley was well shown by Miss Willmott, Warley Place, Essex. It is a fine scarlet variety, of a vigorous constitution, the colour exceedingly showy.

Mr. Amos Perry, Winchmore Hill, showed hardy plants in fine condition, and with a rare lot of *Water Lilies* in trays made a most effective exhibit. Of these latter we noted *N. Laydekeri rosea*, *N. ellisiana*, *N. Marilacea chromatella*, *N. M. carnea*, *N. Gladstonei*, *N. Wm. Douglas* (a grand white), *N. Marilacea alba* (very fine), &c.

Campanula rhomboidalis, a rich blue, was finely staged. It is a capital dwarf border plant. *Heuchera sanguinea* Walker's variety is certainly the finest of all this race, rich in colour and large in bell.

Messrs. James Veitch and Sons, Chelsea, showed *Malmson Carnations* in grand style; the plants perfect in health and vigour. A few of the best are *John Coles*, scarlet, fine; *Robert Burns*, red-scarlet; Mrs. Trelawny, Mrs. Grimston, rosy flaked bloom; Sir Charles Freemantle; Lady Rose, deep rose-pink, one of the gems; *Maggie Hodgson*, crimson; *Nautilus*, flesh; *Albion*, rose; and *King Oscar* being among the best.

Some pots of *Lilium Marham* in variety were shown by Miss Willmott, Warley, Essex.

Shrubs from Messrs. Veitch included *Eucallonia phillipi*, white flowers, *Cytisus nigricans*, golden; *Stuartia Pseudo Camellia*, cupped, white flowers; *Cytisus schipkaensis*,

creamy flowers; a group of *Rhododendrons* of the *java jasmminiflorus* group was also shown.

Carnations of the border type were shown by Mr. James Douglas.

The Rev. W. Wilks, Shirley, showed his much improved strain of *Shirley Poppies*, a group embracing the greatest beauty and many shades of colour.

A group of *Campanula peregrina*, together with a large collection of *Sweet Peas* in pots, from Messrs. James Veitch and Sons, Limited, attracted much attention. These latter were grouped in triangular fashion, three pots of each, and about 3 feet high.

Messrs. Barr and Sons showed a small group of cut flowers, the chief of these being the early *Gladoli*, of which a large variety was set up. *Iris laevigata* in variety and with *Water Lilies* were also from the same firm.

Nymphaea mooriana, from Australia, was shown by Mr. Leopold de Rothschild, Gunnersbury House (gardener, Mr. Hudson). It is yellow-flowered, and, we presume, not hardy.

AWARDS.

The following received an award of merit:

Campanula peregrina. —

This is a showy biennial species of some worth as a flowering plant for the conservatory. The flowers are bell-shaped, pale blue to violet-blue in colour, the ovary being encircled, as also the base of the corolla, with deepest violet-blue. The flowers are arranged in a dense spicate raceme 2½ feet high. The plant is much branched from the base, thus enhancing its decorative value. The species is a very old one, and long known to gardeners. Shown by Messrs. J. Veitch and Sons, Limited, Chelsea.

Carnation Diadem. — A well formed flower, with light yellow ground and rose markings and stripes. The flower is beautifully formed.

Carnation Merlin. — A yellow ground bloom of large size, with bordering of heavy crimson. Both these were from Messrs. Wm. Cutbush and Son, Highgate.

Nephrolepis cordifolia cristata congesta. — This dwarf interesting Fern is fully described, or at least broadly so, in its name. The fronds are some 6 inches long, as shown, the parts apparently congested or closely arranged together. Shown by Mr. H. B. May, Edmonton.

LIST OF MEDALS.

Silver-gilt Flora. — Messrs. J. Veitch and Sons, and Mr. H. B. May, Upper Edmonton.

Silver Flora. — Messrs. R. Wallace and Co., Colchester.

Silver Bankian. — Mr. M. Prichard, Hants; Messrs. T. S. Ware and Co., Feltham; Messrs. B. R. Cant and Sons, Colchester; Miss Willmott, V.M.H., Warley; Mr. J. Peed, West Norwood; and Mr. A. Perry, Winchmore Hill.

* * The reports of the Sutton Rose Show, Croydon Flower Show, and the Royal Horticultural Society's Orchid and Fruit Committees are unavoidably held over.

OBITUARY.

MR. WILLIAM THOMPSON, V.M.H.

WITH much regret we have to record the death, on Friday, the 3rd inst., of Mr. William Thompson of Ipswich, in his 81st year. It is not too much to say that the whole horticultural world—not that of England only—knew and honoured Mr. Thompson. His wide knowledge and unfailing kindness were always at the service of enquirers, while those who knew him as a friend knew how good a friend he was. His position in horticulture was one by itself. His wide botanical studies were reflected in his seed catalogue, always the most interesting of any to the intelligent amateur. In the lists of others of the most eminent seed firms might be



THE LATE MR. WILLIAM THOMPSON, V.M.H.

found varieties of garden flowers carried to big and more special development; but people know that, allowing for errors that must creep into list of such wide comprehensiveness, Thompson was entirely to be depended on.

We desire to record to his honour that in other tradesman's list do we remember to have seen appended to the name of a plant: "This I cannot recommend." The seed in question of some half-hardy annual commonly called but Mr. Thompson had reason to doubt the quality of the batch that had that year come into hands. The same thing may have been observed in the interesting supplementary list seeds of new or special plants. When seed offered of plants unknown to him he passed on description he had received, but was careful to say that he had not himself tested it.

The following from the *East Anglian Daily Times* is of interest:

"Mr. Thompson, who leaves a son (Mr. Sid Thompson) and three daughters to mourn his loss, had resided in Ipswich all his life. He married Miss Fisher of Yoxford, who predeceased him in 1884. As a young man, the deceased gentleman was always deeply interested in science, began by studying chemistry and photography and was one of the earliest pioneers of the Daguerreotype method of photography. After time his health began to fail him a little, and turned his attention to botany, his pursuit of science being at the outset purely a hobby. Little by little he began the exchange and sale of seeds, and he published his first catalogue in 1855.

His speciality was always herbaceous and alpine plants. Through many correspondents in all parts of the globe he was gradually enabled to introduce to the English gardening world a large number of plants hitherto not brought into cultivation.

"The deceased was a man of wide interests, great reading, marvellous memory, and an extremely good linguist. He was of lovable disposition, and displayed an old-world courtesy, combined with entire simplicity of character." Mr. Thompson was a Victoria Medallist of Honour.

The Midland Carnation and Plootee Society will hold its usual annual exhibition on Thursday and Friday, August 6 and 7, which is later than usual, owing to the season.

The Royal Horticultural Society's gardens as an open space for Chiswick.—There is considerable heart-burning in Chiswick over the society's gardens. Some consider their purchase a wise move, others that it is just the spot for a new technical school, but it does not seem at all clear that the council of the society have even parted with them. Whatever their future is to be there is a decided opinion that they should be preserved as an open space.

National Dahlia Society.—A meeting of the committee will be held, by kind permission of the Horticultural Club, in the club-room at the Hotel Windsor, Victoria Street, S.W., on Tuesday, the 21st inst., at 2 p.m. Business: 1. Election of judges for London and Manchester shows; 2. Advertising the London exhibition.—P. W. TULLOCH.

The 1903 Sweet Pea Show.—Evicted from the site of their former yearly displays, the National Sweet Pea Society will hold their third grand exhibition at London's popular resort, Earl's Court, on the 15th and 16th inst. On both days the spacious Prince's Hall at the Warwick Road entrance, picturesquely arrayed with countless varieties of the Sweet Pea from all parts of the kingdom, will be open entirely free to visitors to the International Fire Exhibition. In addition to the numerous prizes offered in the recognised classes, the National Sweet Pea Society's silver medal will be given for the finest novelty of the year.

Bamboos flowering.—I saw your notice of the Bamboo A. Simoni being in flower. I wonder if it is as troublesome as my two large plants of A. S. variegata. These for three years have refused to do anything but flower and seed for about eight months in the year. This year they began soon after Christmas, and there is not a culm that is not crowded with old and young seed-pods. I send you a bit of both to see. You will notice that the later flowering has resulted in plenty of seed set. I did not send any larger quantity as it is not beautiful. The plants now look like ragged bundles of old straw; there must be pints of seed, yet only a leaf here and there. I send one of the largest branchlets, but it shows the variegation. I have never known tender and half-hardy shrubs, also Bamboos, in such rampant growth as this year, and the dry heat that we are now suffering from will, at any rate, ripen the wood, and so do good, but we are parched up.—A. BAYLDON, *Oaklands, Dawlish, Devon.*

I have here a quantity of Bamboos, which this year are covered with inflorescence. Only one is in flower, which I think may be Simoni, but I am not very clear as to the different forms. It would be interesting to know whether the flowering of this Bamboo is general throughout the country this year, also to observe whether the seed will ripen in this climate.—R. M. GREAVES, *Wern, Portmadoc.*

Rhubarb The Sutton.—For a great number of years I have taken much interest in Rhubarb, chiefly to get an early variety with sticks of good colour that does not run to seed quickly. My note on this occasion refers to The Sutton, and so far it is much superior to any variety I have grown. I force large quantities of Rhubarb, and I have given most sorts a trial with excellent results, both in the open ground and in the forcing pit. This variety much resembles the Victoria,

but is earlier and scarcely produces a seed. The colour is a bright rich red, and this is retained even in a cooked state, and the roots even when forced in a dark Mushroom house give well coloured sticks of good size. The Sutton Rhubarb received an award of merit from the Royal Horticultural Society a year or two ago, and in my opinion thoroughly deserved a higher award, as after two seasons trial it is better than older sorts, both for flavour and earliness, two important points. It also forces very readily. This variety is quite distinct from the more recently introduced winter Rhubarb, an American variety that requires no forcing, but merely protection.—G. W.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 80, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHERS. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Names of plants.—J. F. A.—1, *Dictamnus Fraxinella*; 2, *Anchusa sempervirens* probably, no flower remained; 3, *Ajuga pyramidalis*; 4, *Scilla lilii-lycynthina*; 5, *Phyteuma orbiculare*; 6, *Phyteuma orbiculare* variety; 7, *Eriogonum philadelphicum*.—Medway.—*Tragopogon pratensis*.—Rose.—1, *Phyteuma orbiculare*; 2, *Senecio Doronicum*; 3, *Centranthus ruber*.—Lady H.—*Phlox frutescens*.

Unhealthy Fuchsias (A. E. L.).—Judging by the shoots sent your Fuchsia has received some decided check, caused probably by the cold harsh weather that we have experienced this season. Now that the warmer weather has set in the plant will probably soon outgrow its ailment, and flower as well as ever, though, perhaps, a little later than usual.

Current shoots blighted (J. F. B.).—The Current shoots which you sent were very much dried up by the time they reached me, but as far as I can see the distortion of the shoots is due to the action of aphides. The best way of destroying the aphides is by spraying with paraffin emulsion, Abol, or some other insecticide containing paraffin and soft soap. This, however, will not improve the flavour of the fruit, which should be well syringed with water a few hours afterwards. When all the leaves have fallen collect and burn them, and when pruning the bushes collect and burn all that has been cut off. Towards the end of the winter and before the buds show any signs of opening spray the bushes with the following caustic wash: Dissolve 1 lb. of caustic soda in half a pail of water, then add 1 lb. of pearlash. Stir until all is dissolved, add water to make 10 gallons, and then add 10 oz. of soft soap which has been already melted in a little hot water. This mixture is very caustic, and must not be allowed to remain on the hands or clothes. Next season if the bushes be again infested spray with paraffin emulsion as soon as any injury is noticed.—G. S. S.

Pear tree diseased (I. H. WARD).—The branch of your Pear tree that you sent is infested with one of the scale insects (*Lecanium genesense*). If only a few shoots are infested I should cut them off at once and burn them, but if the insects are more or less spread over the tree I should spray the tree well with paraffin emulsion, avoiding the fruit as much as possible. If the tree be a small one you might simply paint the affected shoots over with the emulsion, having first rubbed off with a stiff brush as many of the scales as possible. It is as well when doing this to wet the brush with the emulsion or with soft soap and water. The insect lays its eggs beneath its scale, so that when these are brushed off there is a chance of the eggs falling on to other parts unless they are caught in some liquid. When the leaves are off go carefully over the tree and dress all the infested parts with paraffin emulsion.—G. S. S.

Ventilation of vineries, &c. (EDEN PHILLIPOTS). From your statement that the Azaleas placed under the Vines were known to be infested with thrip, it is impossible to come to any other conclusion than that the Azaleas are responsible for communicating the thrip to the Vines. This is a common occurrence, and arises from negligence on the part of the cultivator in not seeing that the plants are perfectly clean when placed in the vinery for protection during winter. These conditions assured there is no reason why such plants should not be wintered in a vinery. If, on the other hand, insect-infested plants are placed in the vinery all hope of successful Grape culture may be abandoned. Vines seriously attacked by thrip or red spider are so weakened and handicapped as to make it impossible for them to produce heavy crops of good quality fruit. The front ventilation of vineries is a question upon which conflicting opinions are held by experts. To answer your question satisfactorily one ought to know whether it has reference to early, mid-season or late Grapes. If it refers to early Grapes, ripening say at the end of May, the weight of opinion among experts is against the admission of front air

until the Grapes begin to colour. At that season the temperature may be properly controlled by the use of the top ventilators alone. The weather is then usually cold and changeable, and a draught of cold air coming in direct contact with the foliage may do much damage in a very short time by causing mildew or rust to attack the Vines. For later Grapes, during May and subsequent months, front air may be admitted, at first cautiously and sparingly, and only during bright and warm weather. As the summer advances more air may be given, but it is always necessary to exercise caution in the admission of front air. The cultivator's object in view should be to secure a warm, buoyant atmosphere without draughts which chill the air to the detriment of the Vines.

Fly (name of sender lost).—The brilliantly coloured little fly is one of the "Ruby flies" belonging to the genus *Chrysia*. In a garden it is of no importance one way or another, except from an æsthetic point of view, for they are most beautiful little insects. They belong to the same order of insects as the bees and wasps, and lay their eggs in the grubs of other insects belonging to the same order.—G. S. S.

Pæonies and Sweet Peas (E. H. J. CAISTER).—We cannot give the remotest reason for the failure of the former from the very small scrap sent. You give no particulars of cultivation, and you do not say if the disease so-called is of annual occurrence or only of the current year. In the latter instance Pæonies all over the country have suffered terribly from the frost; indeed, this crippled the plants so much that it was feared the buds were ruined. Such frosts as those experienced this year while the plants were in full bud have never before been known, the growths drooping for days. It is probable your plants have suffered from the same cause, and we could have given a more definite reply had you submitted quite fresh material. With regard to the Sweet Peas we say at once it is most unwise to plant in the same position year after year. Nothing is calculated to bring absolute failure more quickly than this. These and similar crops should be given a fresh position or fresh soil each year, the ground well prepared in autumn and liberally treated with nitrogenous manures. Farmyard or stable manure is excellent, and in fresh, deeply worked soil is capable of yielding the best results.

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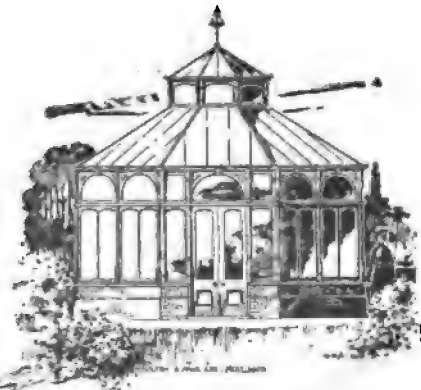
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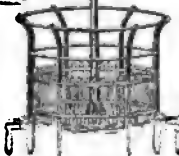
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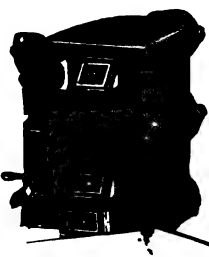
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THE GARDEN

No. 1652.—VOL. LXIV.]

[JULY 18, 1903.]

HARDY FRUITS IN 1903.

A DISASTROUS YEAR.

THIS season will long be remembered in the annals of hardy fruit culture in the British Isles. From reports received early in the year we were prepared to hear of poor and partial crops throughout the country; but later reports gave a gloomy account of the outlook with regard to the returns that might be expected from our British orchards and gardens, especially of the most important crops of Apples, Plums, Cherries, and Pears. Year in and year out we are blessed with an abundant promise of bountiful crops by the rich and luxuriant display of blossom fruit trees always present in spring. This spring was no exception, as a better promise of abundant crops was never more apparent. Amongst other counties, we had the pleasure of visiting Worcestershire, where the trees in orchards and gardens were in bloom, and a more beautiful sight or a more promising prospect for a good fruit season we never remember.

The art of fruit growing in Britain has been brought to such perfection at the present day that the gardeners cannot be blamed in this respect, as the failure is due to the frosts. This year 8° to 10° prevailed for nearly a fortnight together whilst the trees were in full bloom. Under such unavoidable and deplorable conditions as these what becomes of the poor gardener's art and all his labour on behalf of his trees during the year? He has simply to confess himself hopelessly beaten. Is this to go on for ever? Must we always go on bemoaning our fate over this matter of the destruction of our fruit crops by the May frosts? Surely the genius and enterprise of British horticulturists will before long find out a way of solving the difficulty.

Attention was drawn in a recent article in *THE GARDEN*, with illustrations (see issue of the 4th inst.), to a system of covering large areas of land with temporary glass roofs and canvas sides for growing Roses and other flowers for market. These rough and cheap structures for the growth and protection of flowers have proved a complete success, not only in affording protection and improving the growth of the flowers, but financially also. The market grower cannot afford to indulge in fads and fancies. Hard cash is the standard by which everything he does is measured. Here, then, it seems to us that a successful

way has been pointed out by our market-growing friends how to save not only our bush fruit trees and Strawberries, but also our valuable early vegetable crops and salads as well.

These protectors are constructed of rough timber, and any handy labourer can put them together. They can be built of any size and height desired, and for the purpose of protecting fruit trees in bloom glass could be dispensed with and tiffany or herring nets would make an effective substitute. These erections once built will last for years, and when covered with portable lights of glass, as in the case illustrated, and heated with movable boilers and hot-water pipes as practised in the case referred to, they become not only protectors from frosts, but effective and profitable orchard houses, covering at a cheap rate any area of land desired. Adversity and failure are often as potent in teaching useful lessons in life as successes. Let us hope that the destruction of our hardy fruit crops of 1903 by frost will so impress upon gardeners and others interested the importance of protection that some such provision as we have indicated (or something better) will become general in gardens.

EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London.

BAMBOOS FLOWERING.

We have received the following very interesting letter upon the flowering of Bamboos from Captain R. C. Daubuz, Ryde, Isle of Wight: "To my great regret my specimen of *Arundinaria nobilis* is developing flower and seed. The specimen is 25 feet high and 8 feet through at the ground, and was planted some thirty years ago from seed taken from its predecessor on the same site, which flowered and died. This species flowered and died elsewhere the same year. I have enclosed a piece of the cane on which flower is not showing, the difference in size of foliage being remarkable. At the same time the shoots for this year, thirty or more, are 18 inches high and very vigorous. *Arundinaria Simoni* has also seeded

with me this year into a state of broomsticks. This has been noticed in *THE GARDEN* as occurring in several localities, and its liability to do this lessens its value. Two other specimens of *A. Simoni*, younger than the one alluded to above, have no seeds worth mentioning on them, so that age of plant and not season seems to be the factor of importance."

TUBEROUS BEGONIA.

Mr. Greenwood Pim sends from Easton Lodge, Monkstown, County Dublin, flowers of a superb crimson tuberous Begonia; the blooms are very large, not coarse, and finely fringed. Mr. Pim writes:—"I think this is a very handsome and not common Begonia—a fringed one—which I had from Dreer of Philadelphia a year or two ago. It is a very strong grower and free blooming, and produces flowers also considerably larger than those enclosed. I look upon it as a decided acquisition."

ODONTOGLOSSUM CRISPUM FLOWERS.

A correspondent, whose letter we have unfortunately mislaid, sends several spikes of spotted forms of *Odontoglossum crispum*. None of the varieties were of great value, that is, for their "spots," but all were very beautiful, and the spikes showed how well the plants have been grown. The varieties were very distinct, one almost pure white, except a spot upon the lip, and in one, a rosy purple shaded flower, we could trace the influence of probably *O. gloriosum*. We thank our correspondent heartily for so fine a gathering of flowers. *O. crispum* is one of the most easily grown of all Orchids, and should be one of the first selected by the beginner. We hope the sender of these flowers will write a short article upon the culture of this *Odontoglossum* as a help to those who would like to begin Orchid growing in a cool house.

FLOWERS FROM NEWRY.

Mr. T. Smith sends from Newry, Ireland, a charming assortment of good things. We note the more interesting.

Campanula persicifolia Newry Giant.—A very handsome half-double form of one of the best of all Campanulas. The flowers are very large, pure white, and thickly set upon the stem. A group of this in the garden would make a brave show of white, and be less likely to suffer in rough weather than if composed of the single variety.

Veronica hybrida Newryensis.—A very free and pretty form with dense spikes of white and blue flowers. It has a fine leaf and is exceptionally free in all ways.

Anthericum plumosum.—A pretty grassy Anthericum with white flowers.

Iris Delavayi.—Very dark purple-blue with white base to the segments. A handsome and graceful flower.

Campanula persicifolia Daisy Hill.—This is a companion to the Newry Giant mentioned above. The flowers are very large, with two rows of thick blue petals. It is without the grace of so beautiful a flower as the single white *alba grandiflora*, but is a good border plant.

Helianthemum vulgare Lemon Queen.—A quite double yellow variety. A plant for sunny banks.

Iris ochroleuca.—A noble Iris, and the flowers sent are a pleasant reminder of their beauty of colouring.

Ozothamnus rosmarinifolius.—One of the prettiest and most fragrant of shrubs. It is one of the few shrubs that flower in summer, and at this time the dense white clusters are welcome.

Anchusa capensis.—A distinct biennial from South Africa, with flowers of deepest blue, much like those of the better known *A. italica*.

Rosa moschata.—The Musk Rose, sweet and free, but without the charm of the larger variety *nivea*.

Delphinium grandiflorum.—Mr. Smith sends the intense purple type, finely grown, and a clear blue variety named *pallida*, the colour of *D. Belladonna*.

Rosa rugosa x *polyantha*.—A distinct cross between the two species, and with the parentage about equally shown. It should be a good half climbing Rose, but Mr. Smith tells us nothing about its habit.

Old garden Roses.—We were pleased to find in the collection bunches of the deliciously sweet old garden Rose Spong and the De Meaux in three forms, one pure white, and all very fragrant.

Asphodeline isthucarpa.—A soft salmon-brown striped flower, opening about 11 a.m., not showy, but interesting.

Among other things were the soft white flowers of *Cytisus schipkense*, a pretty garden shrub, rare, but should not remain so; its flowers appear in profusion.

EPIPACTIS AMERICANA.

Mr. Field, Ashwellthorpe, Norwich, sends spikes of the very interesting *Epipactis americana*. This plant is as hardy as the common Rhubarb, if only planted in congenial soil and position; it does well in a free sandy soil mulched with leaf-mould or cocoa-fibre, and in a partially shaded spot. It will be found to succeed with pretty full exposure, or in fact as a border plant. It makes a good companion to our hardy *Cypripediums*.

A tall Orchid with quaintly coloured flowers, brown, touched with purplish rose.

STRAWBERRY GIVON'S LATE PROLIFIC.

Mr. George Bunyard, The Royal Nurseries, Maidstone, sends a box of this valuable late Strawberry. The fruits are very large, of a rich red colour, and really good flavour. Mr. Bunyard writes: "This is proving one, if not the best, of our late large Strawberries. The plants are sturdy, of vigorous growth, and the fruits are produced over a long period."

LILIUMS FROM COLCHESTER.

Messrs. R. Wallace and Co., Kilnfield Gardens, Colchester, send a choice collection of Liliiums, Calochorti, and other seasonable flowers. The Lilies are a lovely lot, and include flowers of the choicest species and varieties, many of them of very beautiful colouring. They are as follow: *Lilium elegans* Orange Queen, rich apricot-buff; *L. e. atro-sanguineum*, blood red; *L. Martagon* dalmaticum, deep ruby-red (one of the best forms); *L. M. Catani*, with large black-red flowers; *Lilium venustum* macranthum, beautiful rich apricot colour; *L. excelsum*; *L. concolor* var. *Coridion*, a pretty, small, bright yellow flower; *L. colchicum*, deep primrose ground with bands of deeper yellow and purple dots; *L. superbum*, a spreading star-like flower heavily spotted with purple-black upon an orange-red ground; *L. Humboldtii* magnificum, one of the most gorgeous of Lilies, the ground colour of the recurring petals is orange, the lower half blotched with vinous red, the upper part spotted with purple-brown; *L. Brownii*, pale purple-brown outside and white within; *L. longiflorum* albo-marginata, with white margined pale green leaves; *L. Marhan* (Martagon x Hansonii). The Irises include *I. aurea*, rich yellow; *I. Monnieri*, large, lovely deep lemon-yellow; *I. intermedia* (aurea x gigantea), and aurea x Monnieri. There are also Calochortus venustus pictus, *C. v. citrinus*, *C. v. oculatus*, and the large yellow *C. clavatus* with a beautiful fringe on the petals. *Eremurus* Bungei, a most attractive plant

Eremurus x *Olga*, a soft, rather dull yellow; *Brodiaea californica*, lilac-purple; *B. peduncularis*, *B. ixioides*, *B. Purdyi*, rich purple, and *Ornithogalum pyramidale* also were represented.

SEEDLING MECONOPSIS.

"I send you a few more blooms of the seedling *Meconopsis* plants which have been very brilliant this season. I also add for your table blooms of *Clematis Pallasii* purpurascens, *Carpenteria californica*, *Escallonia langleyensis*, *Veronica elegans* var. *carnea*, and *Typha minima*.—JOHN MCWALTERS, *The Mall, Armagh*."

The double seedling Poppies are very bright, orange-red and yellow, while the large pure white Anemone-like blooms of the *Carpenteria* are very beautiful; *Veronica elegans* carnea has erect racemes of pretty purple-pink flowers, and the *Clematis* bears numerous small white blooms.

LILIUM ELEGANS PETER BARR.

Messrs. Barr and Sons, King Street, Covent Garden, write: "We send you herewith a sample bloom of quite a new variety of *Lilium elegans* called Peter Barr. It is now flowering freely at our nurseries, and grows 1 foot high. It is quite as hardy and robust as any of the other varieties of *Lilium elegans*."

The flower of this new Lily is large and handsome. The colour is perhaps best described as rich apricot-buff, the colour being most intense in the centre of the petals. These are slightly spotted with reddish brown. A flowering plant would undoubtedly be a striking object.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

July 21.—Meeting of the Royal Horticultural Society's Committees and National Carnation and Picotee Society's Show, both at Drill Hall, Westminster, lecture by Mr. G. Hunt on "Horticulture in, and the Flora of, New Zealand; Tibshelf Rose Show.

July 22.—Newcastle (three days), Cardiff (two days), and Glasgow and West of Scotland Pansy Shows.

July 23.—St. Ives and Selby Flower Shows.

July 29.—Chesterfield Horticultural Show.

August 3.—Basingstoke, Newbury, Sheffield, Grantham, Lichfield, and Headington Horticultural Shows.

Royal Horticultural Society.—The next meeting of the above society will be held at the Drill Hall, Buckingham Gate, Westminster, on Tuesday next, the 21st inst., from 1 to 6 p.m. In connexion with this meeting the National Carnation and Picotee Society will hold its annual show. Instead of the subject previously announced, the lecture will be on "Horticulture in, and the Flora of, New Zealand," by Mr. G. Hunt.

Rose Frau Karl Druschki.—The twelve blooms of this beautiful Rose from Messrs. B. R. Cant and Sons, The Old Rose Gardens, Colchester, were a conspicuous feature in the show of the Richmond Horticultural Society on July 1, and deservedly won the first prize. In our report this prize is stated to have been gained by another exhibitor, which is a mistake.

Lecture on Hardy Irises.—A most interesting lecture was given upon Irises at the last meeting of the Royal Horticultural Society by Miss Armitage, and Mr. Caparne was also to have lectured upon the same subject, but his notes will appear in the society's journal. We hope to reprint the lectures when they are published.

Glasgow Rose Show.—Just as we were going to press we received a wire from our correspondent at the Glasgow Rose Show, giving the prize winners in the leading classes. Messrs. Harkness and Co., Hitchin, were first in the class for thirty-six blooms (distinct), and Messrs. B. R. Cant and Sons, The Old Rose Gardens, Colchester, were second. Messrs. Alexander Dickson and

Sons, Newtownards, were first for forty-six blooms; and Messrs. Harkness and Co. were again first for thirty-six blooms (trebles). A first prize for thirty-six blooms (distinct) was won by Messrs. Townsend and Sons, Worcester. Mr. Geo. Prince, Longworth, Berks, was the chief prize winner in the classes for Teas and Noisettes. Competition was strong in the leading classes, and a splendid show resulted. We shall give a report next week.

Bamboos flowering.—The following which appears in *Indian Planting and Gardening* will doubtless be read with interest: "With reference to the flowering of the Bamboos, their alleged death in consequence of the production of seed, we append an extract from an official report drawn up by Major-General C. Lucie-Smith, when Deputy Commissioner of the Chanda district, in the Central Provinces of India, a tract of country some 10,000 square miles extent, over more than half of which in 1869 the forest rolled league upon league, one mighty mass of trees and Bamboos. General Lucie-Smith was for some years in the West Indies and South America, but he never heard that the Bamboos growing in those countries died after flowering. 'The uses of the Bamboo,' he wrote, 'are also infinite, and it could probably be the least use by the people of all the products of the forest. It is of two kinds—the common and the Kutung Bamboo. The first grows in all light soils, and each clump there will be one or two canes which shoot up above the others, with only a small hollow at the core, being the male Bamboo, so prized in the shafts of hog-spears. The Kutung is much larger than the common species, attaining a height of 60 feet, with a corresponding thickness of stem, and grows chiefly on the banks of streams. In the Khalsa country it is found principally in the dense Mohurlee forest, but the Zemindars have it in great abundance. During the rainy season young cane shoots from the ground, and being tender, though of considerable thickness, are easily eaten by the Gouds. It seeds at irregular intervals, and the produce is carefully collected for food. With the effort the Kutung dies, and people of all classes believe that seedling only take place during years of scarcity. My own experience is, that in each year since 1864, various clumps of Kutung have seeded in succession."

Spiraea arisefolia.—Introduced in 1861 from North-West America, this flowering shrub has become very popular in this country, and the shrubbery there are few more beautiful sights at the present time. Though the colour of the flowers is sometimes described as a dirty white, the term creamy white would seem more applicable, and these are produced in large panicles so long as almost to hide the foliage. This *Spiraea* is a spreading bush 8 feet to 10 feet in height, requires little attention, but the current season's growth must be pruned away. Considering the ease with which it can be cultivated, and the happy in almost any soil or situation, it is assuredly a shrub worth including in all gardens, large or small.—A. E. THATCHER.

Swanley Horticultural College. To-day (Saturday) the Lady Frances Balfour presents the prizes to students at the above college who have been successful during the past year. The Hon. Sir John Cookburn, K.C.M.G., will take the chair at four o'clock. Trains leave Victoria at 12.50 and 2.42 for Swanley Junction. Visitors are especially requested to arrive by the early train, as to have time to inspect the college, South Bank Colonial Branch (West Bank), and grounds. The college is 1½ miles from the Swanley Junction Station on the South-Eastern and Chatham Railway. Carriages will meet the trains. Return trains leave Swanley at 4.43 and 6, arriving at Victoria at 5.36 and 6.37 respectively.

Pavetta caffra.—Introduced from South Africa about eighty years ago, this flowering shrub (which succeeds best in a warm greenhouse) is rarely seen, though it is decidedly ornamental. It forms a neat-growing, freely-branched shrub clothed with smooth obovate leaves, while the terminal clusters of flowers, which are borne in compact rounded heads, are white, with

prominent stamens. It flowers at this season, and is not at all difficult to cultivate if potted in a mixture of loam, peat, and sand, the peat predominating. Being a native of Caffraria, it needs a little more heat than plants from the southern portion of Cape Colony. It will flower well when little more than a foot high, but is said to reach three times that height. Under the name of *Pavetta borbonica*, a very ornamental, fine-foliaged stove plant has been long grown in gardens, but it is very questionable if it is a *Pavetta*. It has, however, I believe, not yet flowered in this country, and until it does so this name must suffice. In general aspect it somewhat resembles an *Aralia*, the long narrow leaves being dark green studded with white spots, while the midrib is of a bright salmon hue. This *Pavetta* requires a stove for its successful culture.—T.

Achimenes tubiflora.—This is widely removed from the generally cultivated varieties of *Achimenes*, as, in the first place, it forms a firm tuber-like root instead of the small scaly ones of the other sorts; it also pushes up a stem 18 inches to 2 feet high, the upper portion of which bears several large white flowers. Individually these are long-tubed, with the expanded mouth about 1½ inches across, and of the purest white. Eight or ten flowering spikes form a most attractive group, especially when associated with some low-growing subjects that are overtopped by the flower-bearing portion of the *Achimenes*. It is a native of Buenos Ayres, and has been long known in gardens, but is cultivated only to a small extent. The name of *Gesnera tubiflora* is sometimes given to it.

Ixora coccinea lutea.—In the days when specimen *Ixoras* used to figure largely at the different summer exhibitions this form (now flowering in the stove portion of the T range at Kew) would have been eagerly sought after, owing to the distinct colour of the blossoms. It is a variety of the old and well-known *Ixora coccinea*, but differs from the type in the flowers being of a very pleasing shade of soft yellow, without even a suspicion of the salmon tint which occurs in so many *Ixoras*. One scarcely longs for the large formal specimens of bygone days, but at the same time neat little bushes of *Ixoras* in pots 6 inches to 8 inches in diameter form, when studded with their clusters of bright-coloured blossoms, an attractive feature in the stove.—H. P.

Flowers that attract butterflies. An enquiry is made on page 434 for the names of plants which are noted for attracting butterflies (not white ones) in late summer. I do not know of anything as certain as *Sedum spectabile*, when in bloom, to have a number on or about it on a fine day. Red Admirals, also Peacocks and Tortoiseshells—but Red Admirals in particular—seem to be specially fond of the heads of flowers, on which they rest with their wings opened flat, seemingly in complete enjoyment of sunshine and nectar. The plant is easily grown, and effective both in and out of bloom, compact of habit, and unless drawn up into weak growth in a shady place, never untidy, so that apart from its speciality as a butterfly collector it deserves to be seen more often than it is.—C. SCRABE DICKINS.

Hollyhocks and the disease.—Last year I wrote a short letter on Hollyhocks and the Hollyhock disease, setting forth my own theory that the latter was, to a certain extent, caused by over manuring. My subsequent experience may be of interest to your readers. The plants here having been pronounced by a good authority (Mr. Woodall) to be infected with the disease, I told the gardener to burn them all. This he did, but forgot some on a side border which were not apparently infected. We then proceeded to sow some fresh seed from Sutton. This, in due course, germinated. When the leaves of the seedlings developed they, too, appeared covered with the disease. Could it have been left in the air? These again I told the gardener to burn. He asked to be allowed to keep them till this spring, and in the meantime burned all the old ones from the side border. He then syringed the seedlings with the usually prescribed remedies and pulled off all the diseased leaves, with the result that

by Easter they were more diseased than ever. I then ceased to take any further interest in the matter, and the gardener planted out the diseased plants in a corner of the shrubbery which we had recently reclaimed from nettles, and which, turning out to have been an old ash tennis court, consisted entirely of ashes and sand. Judge of my astonishment a few days ago at finding the plants growing vigorously and appearing perfectly free from disease. The Hollyhocks in the village here look more vigorous than ever this year. I recently saw a row growing 6 feet high in a neglected and dry border not 18 inches wide on the north-east side of a cottage, and another lot over 7 feet high in a similar position in a back yard. Any further experiences shall be chronicled.—BASIL LEVETT, Wychnor, Staffs.

Border Carnation Countess of Paris.—I have grown this variety for the last fifteen years, and it holds its own as one of the best for earliness, delicate shade of colour, and total freedom from splitting of the calyx. It is not so large as some of the newer varieties, but in good soil will come slightly above medium size, and all the blooms develop well. At the time of writing (July 8) we have half a dozen good flowers on many of the plants. It is a variety that requires a little extra attention to secure well-rooted plants for the October planting, from the fact that the grass is somewhat thin and wiry, and root development is slow. Early layering is absolutely necessary, and the soil about the layers should be kept always on the moist side. *Cassandra* is very similar to the foregoing in shape and colour, but is late flowering.—E. BURRELL.

Superintendent of Battersea Park.—We have received the following letter from Mr. J. Rogers, superintendent of Battersea Park:—"My attention has been drawn to a report which appeared in your issue of the 20th ult. of a lecture given to the members of the Battersea, Clapham, and Wandsworth Chrysanthemum and Horticultural Society by Mr. D. Crane, of Highgate, upon 'Violas.' The chair (it is stated) 'was taken by Mr. Weatherston, the able superintendent of Battersea Park,' which statement is very misleading, as this position is held by me, and not by Mr. Weatherston. I shall, therefore, be glad if you will kindly give publicity to this error." [We publish Mr. Rogers' letter with pleasure, and much regret the mistake we inadvertently made. The note in question was sent to us by a correspondent in the neighbourhood.—ED.]

Cardiff Gardeners' Association.—Mr. John Julian, honorary secretary, writes that the annual outing of the above association will be to The Hendre, Monmouth (the seat of the Right Hon. Lord Llangatock), on Monday, August 10. The train will leave the Great Western Railway Station, Cardiff, at 9.20 a.m., returning from Abergavenny at 8.45 p.m. The tickets (to members) will be 10s. 6d., which will include railway journey, dinner, and brake fare to The Hendre and back. Members who would like to take a friend (ladies excepted) may do so, providing the limit (which will be strictly adhered to on this occasion) is not exceeded by the members themselves. An early application should be made for visitors' tickets, which will be issued on the same conditions as for members, excepting that the price will be 2s. 6d. extra. The drive from Abergavenny to The Hendre and back, if practicable, will be a circuitous one of about 28 miles. Members are particularly requested to pay strict attention to the times on programmes, which will be supplied with tickets, and Mr. Julian asks that all who wish to go should let him know not later than August 1.

Society for horticultural science. A movement is on foot to establish in the United States a society for horticultural science. Professor Beach, of the New York Experiment Station, Geneva, New York, is an active promoter of the society, and those interested should address him for particulars. The object of the society is more fully to establish horticulture on a scientific basis. The membership would naturally be made up of the horticulturists of the experiment stations and of the United States Department of Agricul-

ture, together with other scientists whose work has a horticultural bearing. The meetings would be held in connexion with those of some kindred society, as the American Pomological Society or the American Association for the Advancement of Science. This society would not supplant any existing horticultural activities, but would supplement all of them. It would aim to do for horticulture in general what the Plant Breeding Conference did for one special branch—it would call forth and centralise the most advanced horticultural thought of the day. It would be a Plant Breeding Conference generalised. If a sufficient number of favourable replies are received it is proposed to hold the first meeting in connexion with the meeting of the American Pomological Society in Boston, September 10 to 12 next.—*The Florist's Exchange, New York.*

Cydonia Sargentii.—As one who has grown this little *Cydonia* for the last three years I may be permitted to express agreement with what is said by Mr. Goodwin about it. I am satisfied that my plant, also received from Mr. Smith, of Newry, is the same as Messrs. Lemoine's *C. Sargentii*. It is a charming plant for the rock garden, and this season it was greatly admired here when in bloom, at the same time as the double white *Arabis*, which partly carpeted it. The picture presented by the fine white flowers of the *Arabis* and the clustered orange-scarlet flowers of the *Cydonia* was a pleasing one. It bore only one fruit last year, but it was large for the plant. The fruit remained hard and green until late in the season, and its appearance was not tempting enough to lead one to test if it was edible. This season some of the later blooms appear as if they had set for fruit, but the earlier ones did not do so. We have none too many shrubs of its character suitable for the rock garden, and those who secure it will have reason to thank Mr. Goodwin for drawing their attention to it.—S. A.

Tropaeolum polyphyllum.—This distinct trailing *Tropaeolum* is not so much seen in gardens as its merits deserve, and its capabilities for growing on rough rockwork or for covering banks in the early summer are not well enough known. It is very largely grown in the lovely garden of the Messrs. Walpole at Mount Usher, County Wicklow, where many will recollect seeing it in perfect health on the upper parts of the banks of the old mill-stream. It is not always so happy, however, and I have found that this is largely owing to its being given a position in a place where it becomes too dry at or near the flowering time. In these circumstances it soon becomes yellow in the foliage, and goes to rest without flowering. In the garden of Mr. P. Neill-Fraser, at Rockville, Edinburgh, it does well on the rockeries near the entrance to the house, but the best-flowered plants I have ever seen were in bloom in the garden of Mr. W. D. Robinson-Douglas of Orchardton, Castle Douglas, N.B., the other day. They were on a rockery where the roots were in moist peat and under the shade of small shrubs and other vegetation. Through this the trailing stems pushed to the sun, and the plants were remarkably free flowering, and made quite a brilliant effect with their yellow blooms. I have seen it do well in many other places, among these being at Straffan, but nowhere have I seen it so fine as at Orchardton. In my own garden it has done but poorly, but the result of my past observation has convinced me that my plants of *T. polyphyllum* must be removed to a moister position to secure the most satisfactory results.—S. ARNOTT, *Carsethorn by Dumfries, N.B.*

Pelargonium Paul Cramfel.—This is probably one of the finest introductions of late years, either for bedding or pot work, of dwarf compact habit, very free colour, a rich glowing scarlet, with very large trusses, which stands remarkably well. I am using it both in and outdoors this summer, and am so well satisfied with it that all cuttings available will be obtained for another season. It has not yet been tried for winter flowering, but a good batch is coming along in the pits for this purpose. I think the combined habit, colour, and freedom should render it an ideal variety.—E. BURRELL.

Scarcity of fruit in West Middlesex.—The outlook for growers who rely upon their fruit crops for a living is so dismal that in conversation with those who have had fruit farms for over half a century, I am told that such an entire failure has never been known. I recently went over several acres of Plums, and I do not think I saw a hundred fruits, the owner remarking that there was not a bushel in the whole place, and this is not an isolated instance. In many cases the trees are young, well nourished, and fairly clean. The only varieties I saw with a few fruits here and there were Gisborne and Orleans. Pears are even worse than Plums. I counted in my garden three fruits on one hundred trees, and this is general in this part of the country. The trees are also badly attacked by insect and other pests. Mealy bug is rampant, in spite of heavy rains and severe frosts, and this will affect next season's growth. Apples are a peculiar crop. In some cases there is a medium crop of Cox's Orange Pippin, and this is doubtless owing to their late flowering, and small trees are cropping much better than large ones. This was probably because they are more sheltered. The same remarks apply to Lane's Prince Albert, which is always reliable; it did not fail in the worst season I ever remember. Large fruit growers say that they have very few small fruits. The Raspberry canes were much injured, and Currants and Gooseberries dropped wholesale, while Strawberries in most cases are only half a crop. Of Cherries there are practically none. There are a few cases where a tree has a crop, but these are peculiar, as often only a road divides quite barren trees and those that have fruit; the variety is the same, and often the trees are of the same age and size. In my own case we have a few Keswick Codlin Apples on a quarter that is sheltered from the east, but none in any other position. Most of the trees that have any fruits at all naturally flower late. I hear that much the same condition of things exists in many parts of the country. In private gardens the late Pears are always a valuable crop, as they are so useful for dessert when there is a more restricted choice of fruits, and what with other losses the grower's lot this year is not a happy one.—W. M.

THE TULIPAS.

(Continued from page 24)

TULIPA MACROSPEILA (Baker).—An old and valued garden plant with flowers of sweet fragrance. It grows 18 inches high, and is mainly of gesneriana shape and habit, the petals light reddish scarlet, darker externally, forming a deep cup-shaped flower when expanded. The inner basal colouring is black, five sided, and edged with old gold as a dividing colour. Though an old plant it is one of the best late-flowering Tulips, remarkably hardy and vigorous, and growing well in even the poorest soil. One can leave it for years undisturbed, and though it will not increase after the fourth or fifth year on the same site, it will not deteriorate. I have never seen this plant suffer from any disease. Its flowers last long in good condition, and their bright colour, pleasing shape, and sweet fragrance should recommend them to the planter. Several colour forms are grown, but they are not distinct "breaks," merely shade variations, which may or may not be consistent under varying conditions of soil and climate.

T. maculata (Baker) is a taller growing plant, generally 2 feet high, with rather weak stems and medium sized rich crimson flowers. They are like those of *T. gesneriana* in shape, and their bases are dull black, very regular in outline, edged golden yellow. The petals are stout, and stand wet weather well. Many garden forms are known and grown.

Var. brilliant is shorter, exactly resembling the fragrant *macrospila* in outline, colour a bright shade of scarlet-crimson, darker externally, base black, edged yellow.

Var. globosa has very full petalled flowers of perfectly globular outline when closed, coloured a rich lustrous shade of crimson, base intense glowing black. There are two forms *grandiflora* and *nana*.

Var. The Moor is a tall plant with stout stems and glowing scarlet flowers, which expand widely, and their basal colouring is blue-black. This plant and *var. major* are the two best forms of *T. maculata*. They all flower late in the season, lasting till the third week in May. The Moor is the last Tulip to flower save *T. Sprengeri*. They are all accommodating plants, requiring but little care in their cultivation.

T. Marjoletti is a pretty Tulip of billictiana form, the origin of which is unknown to me.

It has slender stems, egg-shaped buds with pointed petals, which do not expand widely, colour a creamy yellow, flushed vermilion near the base on both surfaces; they average 3 inches in length, the inner petals being much broader than the outer, and the basal colouring is a well-defined ring of brown and green. It is a pretty Tulip, of elegant form and delicate colouring, excellent as a cut flower. Its soft colouring is very beautiful under artificial light. Treatment of billettiana, late flowering.

T. mauriana (Jord.)—A fine late-flowering species from Savoy, of gesneriana shape and habit. It should become popular when better known. It grows 18 inches high, has crimson scarlet flowers which are 8 inches in diameter, the basal colouring is a perfect ring of yellow, and the anthers are black. The petals are ovate, nearly equal in size, of stout substance, and their surfaces are very lustrous. The habit of the plant leaves nothing to be desired, and one can recommend it as a capital garden Tulip, distinct in character and colouring, quite weatherproof. At the Temple show, 1902 someone who thought its name had been misspelt altered the label to *T. mooriana*, as the species will be found recorded among plants that there received an award of merit under the name of *T. mooriana*.

T. Maximowiczii (Regel) is a species from Bokhara, coloured purplish red with scarlet shading, basal blotch dark. It is very rare in size and habit to *T. linifolia* and *T. wilsoniana*, and may be similarly grown.

T. maleolens is a European species of no garden value.

T. micheliana, a new species from Eastern Europe, has stout stems above a foot high, leaves lined and flecked as in *T. Greigi*, but sometimes simply glaucous, flowers the petals very broad at the base, coloured reddish scarlet with a well-defined brown or black basal blotch, which runs halfway up the petal. The flowers lack refinement, but with a little trouble seedlings could be reared from the few unflowered forms that are found among imported plants collected wild, and thus establish a better garden type. The leafage and stout stems are those of *T. Greigi*, but the flowers are little better in character than large *T. montana*, the "undesirable" among Tulips. *T. micheliana* flowers in April, cultivation as for *T. Greigi*.

T. montana (Lind.) is a variable plant found on mountain ranges in South-Eastern Europe; its chief home is Persia. It is a dwarf plant with pale scarlet lanceolate petals almost entirely yellow externally, the outer ones being considerably longer than the inner ones. The basal colouring is a mixture of yellow and black, invariably well defined, and generally reaching halfway up the petal. Its garden value is slight, and it is described here because amateur collectors hobby making in its country often bring it home with them as a souvenir in April; grows anywhere.

T. nitida.—A small flowering Bokhara species, newly introduced, resembles *T. Korolkowii* very closely. It has very slender leaves, dark



CYLLIPEDIUM SPECTABILE (THE MOCCASSIN FLOWER OF NORTH AMERICA). (Reduced.)

carlet-vermilion flowers with black basal colouring. It was introduced in 1902, and one year's cultivation is insufficient to determine its value as a garden plant, especially as but 5 per cent. of its bulbs as collected have flowered.

G. B. MALLETT.

(To be continued.)

TREES AND SHRUBS.

CYTISUS SCOPARIUS VAR. ANDREANUS FAILING.

I HAVE read the recent notes about the failure of this plant in two very different kinds of soil with regret, and everyone will agree that it is a great pity such a handsome flowering shrub as this should not thrive.

The fault, however, lies mainly in the method of propagation, which is performed either by means of cuttings, grafts, or seeds for this plant, for the various other hardy forms of *Cytisus* and *enista*. When raised from cuttings *C. s. var. andreas* and *C. purgans* have the habit of suddenly going off sooner or later, usually within the first four years of their existence. All the other hardy *Cytisuses*, as far as I know, make good plants without any signs of weakness when raised from cuttings, notably *C. praecox* (*C. albus* *C. purgans*), which, from its hybrid origin, one could think would be the first to fail. The exact cause of the failure of plants raised from cuttings, the two mentioned above I am unable to say, but if they are examined the roots will be found and springing from around the foot of the cutting, the callus not extending under the base, leaving the central pithy part entirely unprotected. Obviously this is the cause of failure, as I have seen and plants with the stem entirely rotted, while the roots are sound. The moisture seems to strike upwards through the plant, rotting the stem, and using it to go off sooner or later.

By grafting *C. s. var. andreas* on stocks of *C. scoparius* plants are obtained which usually do well, though they are sometimes attacked by a fungus, which is, I believe, principally caused by ringing the scions from an unhealthy plant rather than being characteristic of it when grafted, as, on the whole, it does fairly well when worked. Propagation by seeds is a rather trying task with this plant, as being a sport—though a natural one—does not come true from seed, though if the latter were taken up in a proper manner I do not think why one could not raise it true from seed. As cuttings are now seedlings are very variable, a large percentage being of the true *C. scoparius*, while of the remainder probably not 5 per cent. will be true *andreas*, but vary between the two, being, as a rule, dirty brown markings and very few flowers.

Bagshot, Surrey.

J. CLARK.

THE FLOWER GARDEN.

MULCHING TUFTED PANSIES.

OFTEN regarded as unsuitable to hot and dry gardens are Tufted Pansies, but this is not so. I have in my mind at the moment a garden in which the Tufted Pansies are grown quite freely, and this same garden is in a position where the plants are exposed to the sun from early morn until evening. The garden is also on a hillside, and any plant that may fall is of comparatively small benefit, owing to the character of the soil as well as the apparently unsatisfactory position of the beds and borders devoted to the plants. The gardener, fortunately, is an enthusiast, and has overcome the difficulties of situation, &c. He is a true believer in deep cultivation, and not only does he deeply till the soil, but manures it very freely

also. His plants in consequence have a free root run, and the soil is also kept moist. He pins his faith, however, very largely to a thorough system of mulching the beds and borders. The mulching material is applied quite early in the summer, as a matter of fact before the really hot weather arrives. A small quantity of loam is added to a large amount of horse manure, and the latter is prepared as for a Mushroom bed, and before doing so is carefully broken up and repeatedly turned over. In this way excellent mulching material is made, and this is worked well into the collar of each plant. The surface of the beds and borders is also dressed with the same preparation. By these means the roots are kept cool and moist and the plants thrive luxuriantly. The mulch is not in the least unsightly, and after a few days assumes the normal appearance of the garden soil. Long before the flowering season is over the beds are covered with growth.

D. B. C.

HARDY LADY'S SLIPPERS.

Few hardy plants are more admired than the hardy Lady's Slippers, as *Cypripediums* are often called. The popularity of the plants is well deserved, and as it becomes realised each year that these Orchids are absolutely hardy in British gardens the demand will increase. During the past few weeks a representative exhibition has been seen at the Drill Hall, while the method of staging the plants in colonies or groups not only impresses the visitor with their worth, but at the same time indicates something of the way in which the plants may be arranged in the open garden. It is, indeed, in the garden where such plants show their fullest beauty, and none more so than when a few years established in one spot. In the matter of cultivation there are few, if any, difficulties to surmount generally, while those we illustrate to-day may be safely regarded as the least exacting of the whole race. Taking first the lovely Moccasin flower of North America,

Cypripedium spectabile, we have, perhaps, the finest of the group. The flower is rich and varied in colour, some nearly pure white throughout, others with very rich or intensely coloured labellum, and others again quite intermediate between these extremes. It is of fine stature, often more than 2 feet high, and when established the strongest crowns each year give two and occasionally three flowers in a scape. This species is practically a bog plant, revelling in peat and leaf-soil, while decaying manure may also be added each year. The finest beds of these ever in my keeping were given a covering of leaf-soil and manure each winter, and no plants could have yielded a greater return. Then with moisture at hand all the summer the masses of roots horizontally produced extended quite 2 feet from the tufts. Shade is quite as important. Pot plants may be put out at any time, but the best period for planting freshly imported examples is during autumn and winter. The natural flowering period of this fine hardy plant is July. No other species is so strictly bog-loving as this.

C. pubescens.—This may be accepted as the



CYPRIPEDIUM ACAULE. (Reduced.)

finest of yellow-flowered species, the glistening yellow pouch and twisted narrow petals, the colour of which is brown, giving the flower a distinct character. While not objecting to peat in some degree the plant develops best in moist loam and leaf-mould. The stems are 1½ feet high when well grown, the plant flowering in April and May. North America. Another yellow-flowered species is

C. calceolus, a rare British species, probably now extinct as a wild plant. This may be grown beside the last named, while it is a noteworthy fact for those who live in calcareous districts that this plant is very happy when upon such formation. While some other species may resent the application of lime or chalk, the English Lady's Slipper may be naturalised in this soil. The flower is smaller than *C. pubescens*, the smaller leaves are more erect. It is a most interesting plant.

C. acaule.—Some of the finest examples I have seen of this species have appeared this season at the Drill Hall, the foliage being even more satisfactory in its fine proportions than the pleasing and large rosy purple flowers. It may be well grown in sandy loam, and perhaps it may be said that very few so thoroughly appreciate sand at the root or base. This may be given freely. Light shade is also desirable. This species is not difficult to grow. The rare Siberian

C. macranthum is one of the finest of all the



CYPRIPEDIUM PUBESCENS. (Reduced.)

washy and poor things we now get from Japan under this title, they are a libel upon one of the best of hardy Orchids. E. J.

EVERLASTING PEAS.

ONE is glad to see Mr. R. Dean's note on the early-flowering Everlasting Peas, and his reference to the reputed non-seeding of *Lathyrus grandiflorus* induces one to follow him with a few notes on the whole subject. That *L. grandiflorus* does occasionally produce seed in this country I have had proof of, as I saw last year a pod, containing apparently fertile seeds, on a group of *Lathyrus grandiflorus* in a neighbouring garden. I have also raised seedlings from seeds purchased as those of *L. grandiflorus* var. *Frederici*, but the flowers the seedlings give differ little from those of the common *L. grandiflorus*, though, perhaps, a little larger and slightly deeper in colour. Of course, these seeds may have been raised abroad. Seeds of the typical *L. grandiflorus* are offered by seedsmen. There appears to be room for some variety in this Everlasting Pea, whose flowers are certainly by far the finest of the perennial Peas, and we must forgive its spreading tendencies for the sake of its beauty. Has any one here flowered *L. grandiflorus floribundus*, of which I have only a small plant? I am pleased to see that Mr. Dean speaks so highly of *L. Drummondii*, considered by the authors of the "Index Kewensis" to be distinct from *L. rotundifolius*, although often reckoned as synonymous in gardens. One is dis-

resting to me, especially as the coloured plate in THE GARDEN of this lovely species was from flowers I sent to the Editor. Those who grow it will do well to keep a reserve plant or two under glass in winter, as it may be lost outside during an exceptionally hard winter, or from a combination of bad weather conditions such as we have had this season. Wood's Scarlet Pea, which I take to be the true *Drummondii*, has been killed also, but *L. rotundifolius* has escaped. May I ask if any of your readers have tried propagating *L. latifolius* from cuttings of the old growths just as they push in spring when grown under glass? I have a plant of a very fine white variety which was given to me by a good plantsman who was in the habit of propagating it in this way. It is true that this species may, as a rule, be propagated by cuttings of the young growths from the base in spring, but these are not always procurable from some individual specimens, and the alternative method is worth considering.

Carsethorn, by Dumfries, N.B. S. ARNOTT.

CHERRY GROWING.

(Continued from page 26.)

CHERRIES IN POTS.

To those who are in possession of the necessary glass accommodation the pot culture of Cherries commends itself as a means by which the finest of fruits may be obtained both early and in succession.

posed to agree with Mr. Dean in thinking them distinct. I may also be permitted to mention the manner in which *L. latifolius* of gardens, called by Mr. Nicholson *L. sylvestris* var. *platyphylus*, has suffered this season from the unseasonable weather. I find that Mr. James Allen, at Shepton Mallet, has had an almost similar experience this year, but, if possible, an even worse one. The plants here made growth early in the year, but this was cut down by the late frosts, and some have never pushed shoots since. Those which remain are quite weakly, with the exception of one, which scrambles through a hedge, and was protected partly by its growths being shielded by the branches. I have to deplore the loss of a very fine white variety, which has totally disappeared, though in a warm position.

Another Everlasting Pea of somewhat similar habit, with dull-coloured flowers, which I received as *L. armitageanus*, has suffered like *L. latifolius*, but is now making fresh growths again. *L. tuberosus* is such a favourite with the slugs that I have been unable to keep it. The recent notes on *L. pubescens* are particularly inter-

The preparation of pot trees, both cordons and pyramids, has received the attention of leading fruit nurserymen of recent years, and before making a start any intending grower will do well to get a stock of trees specially grown for pot culture, which may be obtained at prices varying from 3s. 6d. to 5s. each.

The first essential is a suitable house, and in the erection of this the object is to secure the utmost amount of light and ventilation. Span-roofed houses are very good, and if they are built with wooden sides, which will open in sections along their entire length, so much the better. It is usual to have a pathway down the middle, and to stand the pots containing Cherries and other fruit trees on either side. In the case of a lean-to house single cordon Cherries may be trained on the back wall. It is advisable to have some heat, and for ordinary purposes a single row of 4-inch pipes running all round the house is sufficient.

Soil and Potting.—As a rule 10-inch and 12-inch pots are suitable for Cherry trees, and it is most important that they should be thoroughly drained. As Cherries are averse to much root disturbance over-potting must be strenuously avoided, and when trees are well established top-dressing is better than potting every year. When the latter operation is necessary it is best done at the end of September or early in the following month, the trees being placed in similar or larger pots, according to their condition. Fibrous loam, pulled in pieces about the size of a Walnut, is the staple material for either potting or top-dressing, and to this may be added one part of thoroughly decayed manure to three parts of the former, with a free sprinkling of mortar rubble and a few crushed bones. A portion of the soil should be removed from the sides and surface of the ball, and then the latter be placed in the centre of the fresh pot. The compost must be made firm evenly round the sides of the pot with a blunt potting-stick, and the old ball be also covered to the depth of about an inch. When top-dressing is substituted for potting the surface soil is pricked up and removed, along with a portion of that down the sides, by means of a sharp peg or a bent piece of iron, and the space filled up with compost.

Considering that the trees are only provided with a very limited root space the necessity for feeding arises. While in a state of growth liquid manure must be given in fairly liberal quantities, and it is also a good plan to fix zinc collars inside the rims of the pots which will allow for surface dressings of rich compost, through which the roots freely percolate.

Pruning.—The fruiting area of pot trees being restricted, it is desirable that every possible inch of wood should be furnished with fruit-spurs. To attain this object, and also to avoid much knobby work, a system of summer pinching as advised for garden trees outdoors, should be practised. Very little extension can of course be allowed, but in the case of established trees having branches well clothed with spurs not much extension growth is made.

General Treatment.—When the trees are brought indoors in the spring they should be well syringed once or twice a day, and though this operation must of course be stopped during the flowering period, it should be continued again when the fruit is swelling. Very little artificial heat is required to maintain a genial buoyant atmosphere, and on all favourable occasions ventilation should be allowed. Watering must be carefully done, and an over supply be avoided or the result will be sour soil, which is fatal to the health of the trees. After the fruit is gathered the trees may be stood in a sunny position outdoors, and have some straw or Bracken packed round the pots to prevent the sun from drying the soil too quickly. A position outdoors is the best for the trees in the winter. They should be plunged up to the rims of the pots in a bed of ashes, and in the event of severe frost be further protected with litter or Bracken piled round and over the pots. In this manner the trees are wintered safely, and will soon commence action when placed under glass in the early spring.

Varieties.—The following is a short selection of excellent varieties suitable for pot culture:—

Duke, Early Rivers', Governor Wood, Belle d'Orleans, Royal Duke, and Empress Eugénie. It is needless to add that this list may readily be extended, and that all trees intended for pot culture should be worked on the Mahaleb stock.

ENEMIES AND DISEASES.

Birds are the bane of ripe Cherries, and unless some preventive measures are adopted it is hopeless to expect a crop. Trees under glass can of course be protected against the feathered tribe, and when only a few Cherries are grown I would advise dwarf trees, which can be netted. In Orchards clappers and scares may be used when the fruit is ripe, but nothing is so efficacious as a gun, and so persistent are the birds that the "Cherry tender" must keep a close look-out from the early hours of the morning as long as daylight lasts. Black aphid (*Aphis cerasi*) is the greatest enemy of the Cherry in the way of insects, and should never be allowed to make headway. With trees under glass prompt fumigation will check it at once, and specimens outdoors that are affected should be sprayed with a solution of quassia and soft soap or other approved insecticide. Trees in pots are liable to be affected with red spider, and an attempt should be made to avoid it by maintaining a moist atmosphere by syringing and free ventilation. Slugworms are objectionable pests, and when they attack Cherry trees soon make short work of the foliage if not promptly checked. Two or three dustings of lime repeated at intervals of a few days will generally rid the trees of the trouble.

The exudation of gum, so common amongst Cherries, may be traced to a variety of causes, including bruises, bad union of stock and scion, unripened wood, imperfect drainage, over-pruning, and the absence of some essential element in the soil, generally lime. It will be seen then that to a certain extent it is in the hands of the cultivator to avoid gumming by care in the handling of trees and the preparation of the soil. As a remedy surface-dressings of lime in some form are good, and maintaining a free growth by adequate feeding.

G. H. HOLLINGWORTH.

NOTES ON HARDY PLANTS.

ANEMONE POLYANTHES.

SOMEWHAT in the way of the European *A. narcissiflora*, but of more robust habit, the Himalayan many-flowered *Anemone* is a common plant in Kashmir and Sikkim at elevations of 10,000 feet and 12,000 feet. It is usually found growing in moist shady places. A similar position should be selected for it in the rock garden, where it occupies a foremost place among the choicest plants. Though introduced over half a century ago it is still an uncommon plant in gardens. The large white flowers are sometimes 2 inches in diameter, and borne in compound umbels of often twenty flowers on stout petioles exceeding 1 foot in height. An additional attraction is the silky appearance of the whole plant, which is covered with silky hairs. The illustration shows a plant growing on the north side of a stone in the rock garden at Kew.

W. IRVING.

THREE HARDY GERANIUMS.

GERANIUM SESSILIFLORUM AT BITTON. — Nearly fifty species of *Geraniums* are to be found mentioned in the "Kew Hand List," and even these but a tithe of the hardy members of this genus

which have been described by various authorities. Some of these have probably never been introduced to English gardens, and many are doubtless unworthy of cultivation. Quite recently I was very pleased to meet with a species which is as rare as it is beautiful. It was my privilege during the last week in June to be allowed to spend an hour or two in Canon Ellacombe's most charming and interesting garden at Bitton, and the Canon himself was good enough to show me some of the most noteworthy and beautiful plants in his collection. We were walking down the path in front of the long and sheltered south border when, among the numberless little dwarf rock and carpet plants which fringe the stone edges of this border in such a charming manner, I saw in the distance what at first sight appeared to me to be an enlarged form of *Erodium chamaedryoides*, but which on closer inspection proved to be the dainty little *Geranium* which forms the subject of this note. The remarkably thick green leaves, between which peeped the almost stemless flowers, that are white veined with purple, formed a lovely little floral carpet but an inch or two in height. It is synonymous with *G. brevicale*, and a description

hardy *Geraniums* is tried it should be done in spring just after the plants have begun growing. Another species,

Geranium argenteum, a deservedly popular plant, is one of the most delightful of the whole genus, and has been very good with me this year. It attracts the attention of even the most unobservant visitors, not because its blossoms are of brilliant colouring, but from the fact that the whole plant is so neat in appearance. The tufts of silky, silvery leaves, surmounted by the rose-coloured flowers, are most attractive, and it is one of the choicest gems for the rock garden with which I am acquainted.

ARTHUR R. GOODWIN.

NOTES FROM SCOTLAND.

THERE has been not a little grumbling about the want of Cauliflowers, accentuated, as it has been, by late Broccoli having turned in earlier than usual, so that during the month of June there was a regrettable gap in the supply. Much of the loss and dissatisfaction might have been discounted if, instead of Early London being solely cultivated in



THE RARE ANEMONE POLYANTHES IN THE ROCK GARDEN AT KEW.

of it is given in Hooker's "Handbook of the New Zealand Flora," page 36. It seems to prove hardy at Bitton, and appears to flourish in just such a position as suits the little *Erodium chamaedryoides*. I do not think that it is in commerce, but seed ought to be obtainable from one or other of the New Zealand seedsmen.

Geranium subcaulescens. — I noticed this bright little plant in flower on the rock garden at Kew at the end of last month, and mention it here because its merits must be unknown to many amateurs, or else it would surely be more cultivated. Many of these hardy *Geraniums* are difficult to propagate as they have a tendency to form but one root-stock; it is almost impossible to divide successfully. Neither do cuttings meet with success because the shoots sent up are usually only flowering stems, which refuse to root. Fortunately, many of the species seed pretty freely, and this is the case with the plant under notice; but to ensure success I find that the seed should be sown as soon as possible after it is gathered. *G. subcaulescens* has roundish, downy leaves divided into five segments; the flowers are rosy violet with veins of a darker colour. It is well worth a sunny position in the rock garden in sandy loam. If division of these

many gardens, one of the early-forcing varieties had been substituted, and the seeds sown under glass in January instead of the autumn. It is seldom that late Broccoli and one of these early Cauliflowers fail to overlap, but this year we had the interval of a week between the end of the first-named and the commencement of the other. Large and beautiful heads of Methven's strain are being out. The plants are much more robust than some of the early-forcing sorts, and only slightly later. In your report of the York Gala a slight mistake was made in describing the

NEW APRICOT-COLOURED CARNATION

Francis Samuelston as a tree. By the courtesy of the raiser I had three small plants in spring, which show none of the characteristics of the tree section. In addition to its glorious colour the plant is quite upright in habit, very floriferous, and, as twenty-two shoots are ready to layer, also free of increase. In grass and growth it is, indeed, similar to Mephisto. I have another variety from the same raiser, apparently from the same seed-pod, as it is in all respects similar, save in colour, which is brick red. It is named Muriel Samuelston. I anticipate that both sorts will become popular

garden varieties, though, judging from the many failures in constitution that have occurred in the past with new varieties, time is necessary to determine that.

FRUIT AND FLOWERS AT NEWBYTH.

It is seldom that really good Strawberries can be gathered off plants of Royal Sovereign in the garden here, the soil being light. My own experience points to the conclusion that it is fit to grow only as a forcing variety. Yet at Newbyth, Sir David Baird's place, it produces enormous crops of magnificent fruits. Mr. Thomson told me, when lately I called to see some of the good things in the garden there, that he had gathered as early as June 18 from plants set out last September. These were producing finer fruits, but two year old plants were carrying the larger crop. Newbyth has long been noted for its superior hardy fruits, Peaches in the open being particularly well done. This year they are, unfortunately, a comparative failure. Enormous quantities of hardy flowers are cultivated in the borders alongside the walks in the kitchen garden, rendering that generally prosaic enclosure gay and always pleasant to ramble through. A distinct and pretty strain of Sweet William is largely cultivated, and is attractive and sweet.

R. P. B.

ROSE GARDEN.

ROSE VISCOUNTESS FALMOUTH (H.T.).

ONE of the first of the late Mr. Bennett's results in cross-fertilising the Rose was the above. Though a fairly good variety it never made many friends in this country, probably because, with others, it was introduced with rather a flourish of trumpets. The first few Mr. Bennett sent out were decidedly disappointing, although how far they were used in producing the splendid results of his later efforts no one probably will ever know. I do not suppose there is now an English catalogue that contains the name of Viscountess Falmouth, but it is found in many foreign ones. The flowers are of a rich rosy red colour, and are very large when well grown. The form is globular, the blooms being fairly full and very sweet-scented. It is a useful variety for winter blooming, as is Duke of Connaught, another variety of the same year (1880). Mr. Bennett said he obtained this variety by crossing the Tea Rose President with the Moss Hybrid Souper et Notting. He was certainly wise in using President as the seed-parent. I am persuaded we shall yet obtain some glorious Roses by going back to the old varieties and using them for hybridising.

ROSE CLIO (H.P.).

An exhibition tent is not the best place to see this beautiful Rose, but when seen growing upon the plant it is one of the best of the sturdy Hybrid Perpetuals. Its vigour and freedom of flowering commend it to all who are anxious to obtain Roses that may be depended upon to grow well. Clio is not a good autumnal, and the same may be

said of quite a number of our popular Hybrid Perpetuals; but I should not discard them on that account. The colour is blush white with the delicate pink shading of the Celestial Rose, the latter a near relation to Maiden's Blush. I am confident that we do not obtain half the beauty that is possible with these Hybrid Perpetuals. Let them be treated as 3-foot to 4-foot pillars, and see how beautiful and showy they will become. The growths may be pruned irregularly, some being left 1 foot long, others 1½ feet, others 2 feet, and so on, and a pillar of blossom is the result.

PHILOMEL.

ROSES AT WOLVERHAMPTON.

ALTHOUGH the effects of the season were plainly visible on many of the blooms, several very fine boxes were staged at this show on the 7th inst.



ROSE VISCOUNTESS FALMOUTH.

In the premier class for seventy-two varieties, Messrs. R. Harkness and Co. of Hitchin were placed first, and their exhibit contained some splendid flowers. The following were particularly fine: Mme. Cadeau Ramey, Golden Gate, White Maman Cochet, Mildred Grant (a superb bloom), Frau Karl Druschki (an exquisitely shaped flower), Mrs. Edward Mawley, Mrs. J. Laing, Bessie Brown (a huge flower), Louis van Houtte, and Duke of Wellington. Messrs. B. R. Cant and Sons were placed second. Their stand included a superb flower of Helene Guillot (pearly white, with a salmon-pink centre, and very shapely), Jean Ducher, Ben Cant (a splendid colour, but rather undersized as shown), Ellen Willmott, Robert Scott (a lovely clear pink), Souvenir de President Carnot, and Medea. The third prize went to Messrs. D. Prior and Sons, whose stand included

fine examples of Emilie Gonin, Muriel Graham, and Horace Vernet. Five splendid flowers in Messrs. R. Harkness and Co.'s exhibit, which secured the first prize for forty-eight distinct varieties, are specially worthy of mention. They were Lady Clanmorris, Liberty, Captain Hayward, and Marquise Litta. For eight distinct varieties, three blooms of each, Mr. George Mount was easily first with a magnificent box, which was quite a centre of attraction. The varieties were Mildred Grant, Bessie Brown, Frau Karl Druschki, Mrs. W. J. Grant, Ulrich Brunner (very well shown), Caroline Testout, Mrs. J. Laing, and Marchioness of Londonderry. The class for

TWELVE NEW ROSES

brought a capital exhibit from Messrs. B. R. Cant and Sons. In this exhibit one flower—I refer to Prince de Bulgarie—probably attracted more attention than any other variety. The outer petals are of a rosy orange colour, the centre suffused with intense salmon-pink. Its fragrance also is delicious. Mme. Jean Dupuy may be summed up as a pink Francisca Kruger, and we can only hope that it will grow as well as does this latter. Fru Peter Lambert did not appear to me to be nearly so shapely as Kaiserin Augusta Victoria, although stated to be a pink form of this variety. Edmond Dashaes was also shown, but did not strike me as being distinct enough to be wanted. In the class for nine distinct varieties of Teas and Noisettes, to be staged in vases, seven blooms of each, Mr. G. Prince had a beautiful exhibit, which easily gained the first prize. The varieties, which were tastefully staged on black velvet, were Innocent Pirola, Souv. d'un Ami, Souv. S. A. Prince, Marie van Houtte Medea (extremely beautiful), E. Gifford, Mme. de Watterville Maman Cochet, and White Maman Cochet. An extremely interesting class is that for twelve dark Roses and here Mr. Mount again was with a superb box of Liberty beating several exhibitors who had relied upon A. K. Williams. In the class for twelve light Roses Mr. G. Prince carried all before him with Mildred Grant, who Messrs. Townsend were seen with Bessie Brown, both very fine exhibits.

A. R. G.

DAFFODILS FROM SEED.

I HAVE just read the Rev. S. E. Bourne's very excellent little book on Daffodil culture, "The Book of the Daffodil," which is practically a reprint of a paper read by him at the Malvern

Hall in April, 1900, with some additions, notably a list of all Daffodils that have been certificated by the Royal Horticultural Society up to last year, a very useful list of really good flowers that have not received an award, and a chapter on "Cross Fertilisation and Seedling Raising." This chapter would have been more useful to beginners if a list had been given of varieties that seed freely and of the most useful pollen flowers. In the hope that others may give us their experiences in this direction I append a list of Daffodils that I have found good seed bearers. My experience only extends over about five years, so that my list must naturally be very incomplete, but when I started raising seedlings such a list would have been a great help to me. It can

arises, for the most part, good cheap varieties that can be recommended to a beginner for this purpose.

FREE SEEDERS.

M. J. Berkeley, almost every flower crossed sets seed; Apricot, every flower I have crossed (for two seasons) has set seed; Golden Prince, very free seeder.

GOOD SEED BEARERS.

Mrs. Thompson, Chaucer, Comus, Weardale, Minnie Hume, Firebrand, Princess Mary, Princess Louise, Cassandra, Ornatus, Cernuus Pulcher, Mrs. Burbidge, P. R. Barr, William Goldring, Mme. Plomp, and Emperor.

FAIR SEEDERS.

Horsfieldi (usually very few seeds in each pod), Mme. de Graaff, Baroness Heath, Mrs. C. Bowley, Maximus, Flora Wilson, Gloria Mundi, James Bateman, Poetarum, Mrs. W. Ware, Princess Ida, and Golden Spur.

Of the following I have only had seed from a small percentage: Nelsoni major, Shakespeare, Glory of Leiden, C. J. Backhouse, Jeannie Woodhouse, and Ellen Barr.

From many varieties I have never succeeded in getting any seed. Empress is one of these, also John Nelson, Captain Nelson, George Nicholson, M. Magd. de Graaff, Sir Watkin, William Wilks, and Crown Prince. I should very much like to know if anyone has succeeded with Crown Prince, as if it can be induced to seed it ought to be a splendid flower to breed from. I have entirely failed with it also as a pollen flower.

GOOD POLLEN FLOWERS.

Most of the Poeticus varieties, Ione, Triandrus palatinus, Golden Spur, Santa Maria, Mme. de Graaff, Lulworth, H. E. Buxton, William Goldring, Mrs. Burbidge, W. P. Milner, Obvallaris, Stella superba, Triandrus albus, Emperor, Gloria Mundi, Monarch, and Flora Wilson.

The largest number of seeds I have had out of one pod was eighty-three from Jeannie Woodhouse, every single seed of which germinated.

Scotland.

N. B.

GENTIANA ACAULIS.

FOR its bright display of blossoms in the early spring and summer, the old garden Gentianella is among the most prized of all hardy carpet plants, and on some soils is by no means difficult to please. In other districts, however, the plants are invariably unhappy, and while growing freely, or rather forming patches of rather diminutive growth, fail to give anything like an adequate flowering. This may be, of course, due to neglect rather than anything else, or, again, some deficiency in the soil may, in a measure, account for the poor growth. Too frequently the large patches are left too long without disturbance, which with this species is an error. It is equally wrong, inasmuch as only inferior results ensue when the plants are pulled to pieces and planted, as they are quite frequently, in spring at flowering time. During the latter period many hundreds of plants are sold because attractive, though the future of the majority of such plants would not prove very encouraging if followed up. Where the plant thrives it should be made much of, and no season in the whole year is so well suited



THE GENTIANELLA (GENTIANA ACAULIS) IN A SURREY GARDEN.

to dividing and replanting as September. Planted firmly in good ground at any time during September or October, the losses are reduced to a minimum, the plants take readily to the soil, and continue making stoloniferous growth nearly all the winter, a fact that may be verified in the ensuing spring when the young shoots appear above ground. Overdense patches often fail to flower freely, but with room for development they produce one of the brightest displays of spring.

THE FERN GARDEN.

ECCENTRIC FERNS.

FERN varieties may be classed under two heads—beauties and curios—and, though the former undoubtedly claim first place in collections by virtue of their symmetry and thoroughbred character, the latter are by no means devoid of interest to the student of Nature. The lowest class of curios, so to speak, are the “rogue” members of the Fern family which appear to be trying to vary, but cannot do it properly, and among our native species it is the Male Fern which displays this tendency the most, since specimens are by no means uncommon, in which some of the fronds differ from the normal ones in forking and varying in other ways. Sometimes, indeed, the whole plant is so characterised as to entrap the beginner in Fern hunting into the idea that he has found a prize, while the chances are a hundred to one that when transferred to his garden it resumes its normal character partially or wholly. The writer found a grand specimen of this kind in Scotland, in which all the fronds had abnormally long side divisions, and the sub-divisions of these were prettily cut and set so far apart as to render the plant an acquisition. Dug up and potted it immediately produced a set of common fronds, perfectly normal. Next season, however, it resumed its form as found, and, being then divisible, was divided, one being potted, the other installed in a congenial shady position in the open. Result—a good variety in the pot and an absolutely normal plant in the open. What subtle influence can determine so marked a structural change no one can say. It is not determined by exposure, for, as

we have seen, the plant was found in the open, and, moreover, the abnormal character is perceptible directly the frond begins to uncoil, so that it is not a question of subsequent influence, but begins in the crown. This instability is usually very difficult to breed out; it is as a rule inherited and transmitted generation after generation. That charming Lady Fern (*Athyrium filix-femina* Kalmthout) has been raised presumably by the thousand, but all the plants we have seen show, sooner or later, a few pinnae or an entire frond of much wider and tougher make, and, what is more, its spores invariably yield a percentage of plants so characterised throughout (*A. f. f. plumosum* Stansfield), without, however, the least tendency to vary again into the Kalmthout type.

Here, beyond a doubt, it is a case of simple, partial, or entire reversion. That beautiful Polypody, *P. vulgare cornubense*, is a precisely similar example, except that it goes a step further by bearing three kinds of fronds, viz., the very finely dissected ones of the type, a coarser make of this, and perfectly normal ones. An odd feature in this plant, and a truly eccentric one, is that here and there the side divisions of these normal fronds may be of the best dissected type, or all three types may appear piecemeal on one frond, as it were in patches. This Fern, crossed with a crested form, exhibits its eccentricity still more markedly, for now we have five or six different kinds of fronds, viz., normal, normal but crested, dissected, crested, and uncrested, and the intermediate type ditto, showing that the varietal and normal influences have not properly combined, and are still capable of asserting themselves independently here and there. This again is obviously due to reversion. The class of “eccentrics” known as truncate differ in being constant and of a type which cannot be imputed to specific influence. In these the frond and its parts are normal up to a certain point, at which, however, side and terminal growth suddenly ceases, the midrib continues a little way as a thorn, and the ends of the frond or pinnae terminate squarely or with a sort of pouch, or they may finish up roundly with the midrib projecting at the arc of the semi-circle as a Thorn, either in front of the frond or the back of it, according to the variety, but never indiscriminately. In the Lady Fern we have this exemplified in *A. f. f. excurrens*, all ends square, and a long bristle protruding; in the Male Fern (*Lastrea filix mas truncata*) it is precisely the same, but with a short thorn; in *L. montana* (the Lemon-scented Fern) this form

occurs so frequently that among Fern hunters it is known as "the beginner's find." In the Hart's-tongue, however, we have most examples, and these are known as the pouch-bearing type, in which there is a pouch, pocket, or rosette-shaped cup at the frond end, the midrib projecting from the centre; and the cornutum or horned type, in which the frond is abruptly rounded off, with the midrib projecting behind or before, as above stated. This character is truly transmitted by the spores, and has even been combined by crossing with other types. We have a variety raised by ourselves, in which the usually rounded basal lobes also bear pockets, *Scolopendrium vulgare triperiferens*, or, as we tell our friends, breeches-pocketum. In *Polystichum angulare*, or Soft Shield Fern, we have truncatum forms, with square-topped fronds, but, curiously enough, considering the wonderful tendency of this species to vary, we know of no thoroughbred variety of the *excurrens* type, i.e., with the side divisions thorned and truncate also.

Another form of eccentricity is seen in Ferns of the lineare and mediodeficiens types. In these the small divisions next the midribs of frond and pinnae are either quite absent or reduced to rudimentary thorns; examples of this are found in the Lady Fern, Male Fern, and Shield Fern. This peculiarity is also truly transmitted. Naturally, where the gaps are irregular these Ferns are unsightly, but there are several forms of Lady Fern in which both fronds and pinnae are evenly open along the centre, giving them a light and graceful appearance. We might, of course, carry our theme of eccentric Ferns into many other varieties, but space compels us to limit ourselves to a type or two, and the above are certainly the most striking and interesting.

CHAS. T. DUBREY, F.L.S., V.M.H.

GARDENING OF THE WEEK.

FLOWER GARDEN.

ROSES.

BEFORE these get past their best it is advisable that notes be made of the colour and good or bad qualities of unfamiliar varieties. Now is the time to condemn certain sorts for weeding out to make room for others of a better quality. Some varieties do better in a certain situation or on a particular stock; notice should be taken of these facts. As the foundation of a good deal of work for the rest of the year may depend upon a few days observation, all flowers should be cut as soon as they are faded. Should mildew become troublesome every effort must be made to keep it under. Hoeing should not be neglected, or watering if the weather is very dry. The budding of Tea Roses will now have commenced on Standard stocks, and the work should be persevered with. Stocks often suffer from stagnation of sap in August, and where Tea buds can be had in sufficient quantity it is best to bud early, as these invariably stand the winter better than those budded later in the season.

DAHLIAS.

These just now will perhaps claim more attention than most plants, especially if the weather be dry. Dahlias cannot possibly make headway in a dry soil; they must have moisture and plenty of it or there will be no blooms fit for the exhibition stand. Give them water two or three times a week in the evening. It is no use pouring it on the surface for the greater part to run away. Scoop out a hollow round the plant, fill it with mulch, and water through that. Thin out the growths where necessary, examine the stakes and tie bands, and disbud where too many buds make their appearance. Earwigs, caterpillars, snails, &c., must be searched for, or great injury will quickly be done to the young shoots and buds.

VIOLETS.

These, if not already done, should have a good surface mulching of short manure; such as would be shaken out for Mushrooms will be found very

beneficial, and a good soaking of water to follow. This should be repeated at intervals if the weather is dry and hot. Red spider and other insects are by no means partial to the aroma that follows the soaking of fresh manure.

CLIPPING HEDGES.

Attend to the clipping of hedges. If they are neglected and long woody growths are permitted to form the symmetry of the hedge may be destroyed, for most evergreen plants suffer more from a severe cutting down than from frequent clipping of their small twigs.

T. B. FIELD.

Ashwellthorpe Gardens, Norwich.

THE KITCHEN GARDEN.

EARLY POTATOES.

THESE may now be lifted while the ground is in a fairly dry state, for should much rain occur, especially on stiff soils, the disease may set in. The sooner this crop is lifted and carefully stored after the skins are set the better. Hoe and clean the ground in readiness for some late crop, as Turnips and Spinach for winter, Lettuce, Endive, and late Savoy. No digging or manuring will be necessary for these crops, provided a dressing was given for the Potatoes. Other ground that has been cleared of early crops, as Peas, Beans, and Cauliflower, should be treated likewise.

CABBAGE FOR SPRING.

Much depends upon the locality and nature of the soil as to the date for sowing the seed. Generally speaking, gardeners have a fixed date which they know from experience to be about right for their particular district, but to those who have not had opportunities to note this it is a good practice to make two sowings, viz., one about this date and the other a week or so later. He then makes sure that one batch of plants will be about right. Where the soil is heavy and cold the first sowing should be made at once. Prepare the seed bed by treading, raking level, and watering the day before. Then sow the seed broadcast and cover with mats if the weather be hot and dry. This will conserve moisture and hasten germination. Sow thinly, and when the first rough leaf appears remove a few of the superfluous plants in order to ensure the remaining ones being sturdy. Sow varieties that come into use early and are not addicted to bolting. Good strains of Ellam's Early and Flower of Spring are hard to surpass.

HERBS.

The present month is opportune for cutting down many kinds of herbs for the purpose of drying in an airy shed for use in winter when green herbs are scarce. The growths should be firm and fully developed, as then the full flower of each kind is ensured. A crude method adopted in some gardens is to merely hang up the bunches and use them as required, whilst a few gardeners have the leaves rubbed down to powder, or nearly so, then bottle and properly label them. Of course, the latter method has its advantages if time can be spared on wet days for the operation. The herbs must, of course, be perfectly dry when gathered, also when bottled, and the bottles must be made quite air-tight.

Stonleigh Abbey Gardens.

H. T. MARTIN.

THE FRUIT GARDEN.

PLUMS AND CHERRIES.

If any of the Bigarreau and other late kinds of Cherries are still hanging on pot trees they will be the better for removal to a cool, airy place where they can be effectually protected from sun, rain, and birds, and, space being limited, the very early Plums may be placed out of doors to ripen. The finer varieties, including the Gages, Jefferson's, Coe's Golden Drop, Coe's Late Red, Ickworth Imperatrice, and others, which are so much improved by being grown and ripened under glass, may then be rearranged for the season. If any of the second growths are starting away freely, as they often do after the stoning is complete, let them be stopped at the third or fourth joint, otherwise they will rob the fruit of food and deprive it

of sunshine, of which these cannot have too much, provided they are properly supplied with air and water. Look well to the mulching, add more as it is required, feed well with good liquid, and syringe twice a day with clean soft water until the fruit begins to change for ripening. If any of the

EARLY POT CHERRIES

from which the fruit has been gathered require potting it is a good plan to give them a shift before they are taken out of the house, and as the latter will be kept like a warm orchard house, the soft humid atmosphere will favour the rapid formation of fresh roots. When new growth has set in no time must be lost in getting them removed, first to a sheltered shady place for a few days, thence to a dry open situation where they can be plunged and mulched to save watering.

PEACHES AND NECTARINES.

When all the young growths actually require for forming the trees have been nailed or tied in the final thinning of the fruit will follow without delay, as it rarely happens that fairly-treated trees lose many fruits at stoning time. Where time-attention is paid to selection of the fruit for the crop preference should always be given to the finest on the upper sides of the shoots, and taking the whole area of the wall covered with foliage, about one Peach to the square foot will be found quite sufficient for ordinary trees to carry. For this time forward the principal work will be keeping the foliage clean and free from insects, the most troublesome of which are black fly and red spider. The first may be destroyed by the persistent supply of tobacco water, and the second makes but little headway where the borders are well mulched and the engine is vigorously applied at the close of the day. The proper balance of the trees must also be kept in view, otherwise the right and gross shoots, while robbing the fruit, will greatly interfere with the extension of the leading branches.

STRAWBERRIES.

Young plants intended for making new plantations should be taken away from the parent stock as soon as the small pots are filled with roots. If the ground on which they are to be planted or be cleared of the spring crop, which generally consists of early Peas or Potatoes, lose no time in getting it well manured and broken up to a depth of 18 inches or 2 feet; add another dressing of manure, fork it in near the surface, and tread firmly. Set out the lines 2 feet 6 inches apart, so that the soil of the young plants is thoroughly wet when they are turned out, and place them 15 inches from each other in the rows.

Madresfield Court.

WILLIAM CRUMP.

GARDENS OF JAMAICA.

(Continued from page 431, Vol. LXIII.)

LEAVING the sea coast we may again traverse another chain of mountains to meet with new scenery and fresh spots of interest. We pass through the parishes of St. James, Hanover, and Westmoreland. It is in this part of the island that the finest Cotton Trees are found. These are to be carefully distinguished from the Cotton plant, which is a mere shrub, and would hardly be worthy of notice were it not for the value which manufacturers have placed upon its products.

THE COTTON TREE

is of gigantic size, and equalled by few other trees in any part of the world. It is so called because it produces a thin silky cotton, which is unsuited, but from the shortness of the supply and the nature of its texture, for the purposes of manufacture. One peculiarity of its form is that the high trunk is perfectly straight, and rises to a great height before it throws out any lateral branches. To support this immense mass the tree has great spurs at the roots. The space between these spurs is often so great as to be wide enough for the stabling of horses. Of these trees, one at Hopeton, in the parish of Westmoreland, is about the finest. Its proportions and symmetry are so great that no

estimate can be formed by the eye of its prodigious size. But an observer on the spot estimated that the trunk reached the height of 200 feet ere it struck out any lateral branches, and the trunk itself was 13 feet in diameter. The root spurs of one at the town of Mandeville have remarkable proportions, and it is common to see groups of horses and mules resting between these high projections. The Cotton Tree is seldom used for any other purpose than that of making canoes. These are the native boats which are formed from one trunk; they are hollowed out, and are capable of taking in a considerable number of men and a considerable quantity of cargo.

The Cotton Tree is one of the few deciduous trees to be found in the country. Towards the autumn the leaves begin to fall off, and after a time the branches become perfectly bare.

A large and graceful tree is found occasionally in the mountains, but grows more luxuriantly in the lowlands. It is

THE TAMARIND.

Its foliage is of a pale green, light and beautiful. Some of these trees have the peculiar rounded form of the Mango; but it is generally more irregular in its shape. The fruit hangs from every limb, and has the appearance of a large Bean. When it ripens the skin of the Bean becomes brown in colour; it is easily removed, when the pulp is eaten from the seed. Most persons are familiar with the taste and appearance of the Tamarind when according to general use it is preserved and sent to England. In this state it may be made into a very agreeable beverage, the acid being extremely pleasant.

A group of trees attracts our notice covered with a large green fruit; that is

THE PEAR.

When we speak of the Pear, a very different fruit must be understood to that which is known in England by that name. Indeed, its nature is such that we hardly know whether to speak of it as a fruit or a vegetable. The shape of the fruit is very like that of our Pear, but it is much larger, and has a more tapering neck. Its colour is generally does not vary, being green when it is quite ripe. There are a few sorts, however, which become purple when this is so. The Pear should be gathered before it is ripe. It is known to be so by the shaking of the stone within; indeed, the experienced eye knows this from observation. When gathered, it is put in a warm place, or, what is better, covered with some kind of grain. In a few days it will be fit for use. The outer skin is then cut with a knife, and affixed to it is found a firm substance of the consistency of marrow, from three-quarters of an inch to 1 inch in thickness. There is a large stone within. This marrow substance is eaten with salt and by some persons with pepper also. Animal and other vegetable food is eaten with it, and there is no meal at which it is not used. There are few persons who do not from the first like its flavour and taste, but after a time everyone is wont to pronounce it to be the most delicious of all vegetables and fruits. Its proper name is the Avocado Pear.

There is another fruit-bearing tree which is very remarkable in its character. The wood of

THE CASHEW,

like that of most fruit trees, has but little value. But it produces a Nut, which by many persons is esteemed to be the very finest that can be found in any part of the world. But this Nut grows in a most curious way from the end of the fruit, which is almost the size of a small Pear. The colour of the fruit is yellow, and the Nut pale brown of a kidney shape. The Nut is enclosed in a very thick shell, the oil of which is so pungent that if the lips are touched with it it blisters the skin. The usual way of separating the shell from the kernel is to place it in a light fire made of thatch leaves, taking care to remove it as soon as the shell appears to be well roasted. They may also be eaten in their uncooked state, and if placed in salt and water they are particularly agreeable. The

least nine months in the year it is possible to obtain Oranges.

The tree grows as luxuriantly in the mountains as it does in the lowlands, but the quality of the fruit is very much better in the latter parts. Like the Mango, it grows wild or is grouped together in the open fields. In all these cases Oranges may be taken in numbers by anyone who wants them. The people from the country take them into the town markets, where baskets of them may be bought for a very small sum. Perhaps there are no Oranges produced in any part of the world, except Jaffa in the Holy Land, which may be considered superior to those of Jamaica. There are several sorts of Oranges. The Seville of Bitter Orange is that which is used for preserving.

We are now among the rocks and precipices or some parts of the mountains of the parish of St. Elizabeth's. This is the character of portions of the mountain range, but most of it is rich and fertile. In the midst of these rocks

THE ALOE

grows in great luxuriance. It seems to thrive best where the roots manage to penetrate between the crevices of the rocks, and it is probable that from these there is a greater supply of moisture. We see them sometimes perched like a huge bird upon the edge of some precipice, at other times grouped together in masses on the most rugged places. They are rarely seen to flower in our

land, but in Jamaica the plant throws out its majestic flower when it is about three years old. The shoot proceeds from the centre, gradually rising to the height of 10 feet, 12 feet, or even 15 feet. From the top the pale yellow blossoms are thrown out, and when the Aloes are fine, few things can be compared to them for majesty and gracefulness of form. Soon after it flowers the plant begins to die, and as both the stem, leaves, and flower wither away the place is taken by another young Aloe.

When the shoot is young the top is sometimes cut off, and if some of the inner part is scooped out the sap rises and fills it like a cup. The action of the sun produces fermentation in the liquid, and it becomes thus a strongly intoxicating liquor.

The Aloe is commonly called in this country the Kuroatoo, and by some persons the Jamaica Maypole. An amusing story is told of a gentleman from Jamaica going to an exhibition of a "great American Aloe" in London, and his indignation at

finding that he had paid his shilling to see what he called nothing but a "Jamaica Maypole."

(To be continued.)



CATTELEYA WARNERI ALBA. (Two-thirds natural size.)

(Shown by M. Peeters, Brussels, at the recent Holland House Show. It then obtained a first-class certificate and a cultural commendation.)

fruit is too acid to be generally eaten, but it makes a most excellent preserve.

Throughout this part of the island

THE ORANGE

is found in great abundance. They form in some parts quite a hedge by the roadside. In others they are scattered here and there or grouped together in clumps. In some few instances they are planted in groves, which, when the fruit is ripe, present a beautiful picture of green and gold.

The Orange is too well known in our own land to need a lengthened description. It possesses the remarkable peculiarity of having the blossom, young, green, and ripe fruit on it at the same time, and this will account for the fact that at

CATTELEYA WARNERI ALBA.

ONE of the most striking plants at the recent Holland House Show of the Royal Horticultural Society was a plant of Cattleya Warneri alba, shown by M. A. A. Peeters, of Brussels. It had two strong growths, one of which carried a raceme bearing five lovely flowers, white except for the orange throat. A high price was asked by M. Peeters for this

plant. The Orchid committee gave it a first-class certificate, as well as a cultural commendation.

THE KITCHEN GARDEN.

CAULIFLOWERS IN POTS AND FRAMES.

DURING the past few years excellent varieties of Cauliflowers have been introduced, which give good returns in frame or pot. Few vegetables are of better quality when forced than the early Cauliflower, as grown thus there is an absence of that strong taste which many find objectionable.

In many gardens want of space would be the drawback to the growth of Cauliflowers under glass; but let me add fire-heat is not necessary, and what may be termed cold frame treatment only is required. In many gardens at the present day

of the country require glass protection a portion of that time, so that it will be seen what an immense gain the dwarf-early forcing Cauliflowers are. In many gardens good vegetables are none too plentiful in late May and early June, and the Cauliflower is more valuable then, as, though small, it is delicious.

Any of the varieties referred to, if sown in January or February, will give a May supply. I prefer to sow in pans or boxes in a warm house or frame on a hot-bed, and to place near the light. When the plants are well above the soil prick out the seedlings in boxes, or on a bed with a little warmth, and then when large enough transfer them to their growing quarters.

The plants, when they have made four or five leaves, are potted up in 6-inch pots. I have grown Snowball in 5-inch, but the plants of Sutton's First Crop are best in a larger size, and grown thus they take up little room, as they stand pot to pot for a time, and may be placed in the front of fruit houses, cases, or in cold frames.

In our own case we grow the plants in three different ways. An early lot is planted out on a warm bed of leaves and litter, frames being placed

stronger, and there is less fear of bolting if too much warmth is given at the start. I find the best results are obtained from plants planted out in cold frames. The heads are cut when about the size of a cricket ball. Planted out in March from seed sown six weeks earlier there will be good heads in May, and the plants may be grown much closer than on open borders. We give 15 inches between the rows, and a little more than half that distance, say 12 inches, in the rows. The frames when planting are kept close. In some seasons it may be necessary to cover the glass at night if growth is active. Another lot of later plants may be placed under hand glasses in the open on a south border. These give a succession, but for that purpose I should prefer pricking in frames from the seed-pan and the planting out.

By frame and pot culture there is no difficulty in having choice Cauliflowers when they are most appreciated, and at a small cost. Glass erections are now so numerous that frames can be spared in early vegetable crops. They can be used for a many plants that they are most valuable adjuncts to all gardens, as in autumn they are quite a valuable for sheltering plants or vegetables, especially salads.

G. WYTHE

THE CUSTARD MARROWS IN FRAMES IN SPRING.

THE trial of Vegetable Marrows at the Royal Horticultural Society's garden will be very interesting this year, as we may possibly get some good additions to this useful class. Although Custard Marrows crop less freely than the oval or long varieties, they well deserve attention, and when given a warm bed and frame crop much earlier than the open ground plants. There are several distinct sorts, the Bush, Cluster, or (as I call them) the Bunch, but I do not think these are equal to the trailing variety with ornamental fruit, as, though this requires more space, it is an easy matter to restrict growth by stopping, and thus secure an early set. I find that the Improved Custard crops much earlier than the Bush grown under glass, and earlier is a great gain. Another point is that these fruits must be cut young to get the best quality. If left to attain full size they harden, and are then dry and mealy. For early supplies the Vegetable Marrow is well worth frame culture, and even for open ground culture the Custard should be given a trial as it is so distinct from the other varieties. It makes a nice change in the vegetable supply, a point that should not be overlooked in gardens of any size. The plants continue bearing long time if the frames are removed and the supplies of food given in the shape of liquid manure.

S. H. L.



A SIMPLE AND EFFECTIVE METHOD OF PROTECTING STRAWBERRIES.

there are late fruit houses which would suffice to start the plants when given pot culture, and the frames are often available after winter is over. The value of Cauliflowers grown thus is that there is no break between the late Broccoli crop, such as Model and Late Queen, and the plants turn in just before the Peas, Beans, Marrows, and other choice vegetables.

For many years I grew Cauliflowers largely in Peach cases not forced, and at that time the varieties were not so dwarf or reliable. Such sorts as Early London take a longer time to mature than Sutton's First Crop and Veitch's Extra Early Forcing. These are admirably adapted for frames, and to them should be added Carter's Defiance Forcing and the older Snowball; the last-named, though very small, is one of the earliest.

The culture is most simple. There must be no break or check from the time of sowing the seed till the heads are cut. The old system of sowing in autumn is now superseded by sowing the forcing varieties, as these with good culture may be grown in about three months, or at the most four, whereas autumn-sown plants require nearly three parts of a year, and these latter in most parts

over the bed when the latter is made, and from 6 inches to 9 inches of soil given. Very little heat is required, as too much causes leaf growth, and at all times when the weather is favourable free ventilation should be afforded.

These plants turn in first, and grown thus there is no gap between the Broccoli and the first frame Cauliflowers. When frames cannot be given pots are used of the size named, and the soil employed is rich, but firm potting is required to get a sturdy growth. After the potting the plants are placed in any convenient position such as described above, but if frames are available there is no better place, as here the plants can be given more light and grown as firm as possible from the start.

I have grown pot plants in a variety of ways on stages or shelves, and also on the front borders of a cool fruit case, and by the use of pots the border is not soddened or injured. I do not advise the culture of the older sorts, such as Walcheren, in pots, though excellent results have been secured. These plants require more room.

For pot culture I prefer First Crop or Defiance. These are superior to Snowball, the leafage is

THE FRUIT GARDEN.

THE STRAWBERRY SEASON.

STRAWBERRY time is now with us, and those who grow these luscious fruits are usually obliged to take some steps to protect them from the ravages of birds—blackbirds and thrushes are especially fond of Strawberries. The old, and at one time universal, custom of covering Strawberry plantations with fish nets resting upon the plants is now superseded in many gardens by a method that has much to recommend it. Instead of the net being directly in contact

with the plants, it is raised at varying distances by means of woodwork. As shown in the accompanying illustration, the net is raised some 18 inches or 2 feet above the plants, while in some cases growers erect a wooden enclosure sufficiently high to allow a man to walk beneath and cover it with netting. For a narrow border as that here illustrated, however, such an erection would be altogether unnecessary. The advantages of a raised netting are that it effectually prevents birds from reaching the fruit, as they are still able to do when the net rests upon the plants, and there is no risk of damaging the fruit when gathering.

The nets can be easily removed from the low wooden structure, while from the higher one of course it is not necessary. For very large quarters covered with Strawberry plants it is well worth while to erect such a wooden enclosure as previously mentioned, high enough to allow one to walk beneath, say 5½ feet. This height permits an average man to gather the fruit without inconvenience and with far greater despatch than when the plants have to be removed and replaced. Unless the Strawberry quarter is fairly large it hardly pays to put up a protection of this description. When very early fruits are desired, for instance, from plants on a narrow south border, a low wooden framework, over which muslin blinds are rolled, hastens the ripening of the fruits very considerably, and the same framework may be covered with netting later in the season when the Strawberries are ripening.

When they have to be sent long distances Strawberries should be gathered early in the morning when they are cool, and as all those will now who send Strawberries by rail or road the fruit must not be touched with the hand if they are to reach their destination in the best possible condition. All handling should be done by means of the fork, and this is not difficult if the fruit is first gathered with a good fork. Packed singly in a Strawberry leaf and placed closely together in square shallow boxes, several of which are finally tied together, holding one layer only, and divided into four compartments, they will travel well. Line the interior of the box with Vine leaves (preferably young ones, gathered from a Vine out of doors) so as to ensure a firm base. It is a good plan to have a few leaves out of doors, simply for the production of leaves; for packing Strawberries, Peaches,ectarines, &c., they are invaluable.

Some varieties travel much better than others, and it is as well to bear this in mind when sending Strawberries to be sent a long distance. The fruits of some are so soft that it is next to impossible to ensure their delivery in good condition after a journey by train. Sir Joseph Paxton is a good variety to send long distances, also are Royal Sovereign and President. Unless is another variety safe to pack, and that is not nearly so widely grown as it would be. It is a large, brightly-coloured, wedge-shaped fruit, and has a distinct and aromatic flavour peculiar to it. The plants grow well and bear it freely if given good cultivation. Unless Strawberry is one of the oldest varieties, but we seldom hear it spoken of and

very rarely is it exhibited. Royal Sovereign seems to have eclipsed several really good sorts that formerly were widely grown, and this is a pity, because there are several Strawberries of much better flavour than Royal Sovereign. The days of quality rather than quantity seem to have passed away. Formerly cultivators were content with a fair crop, but liked to have their Strawberries of the best quality. Nowadays it is quantity that must be had, quality is a secondary consideration, and so a variety like Royal Sovereign holds the field. La Grosse Sucrée is an excellent Strawberry in most gardens, but is rather too soft to travel really well. Sir Charles Napier may be recommended to those who like a sharp flavoured fruit; it is firm, and travels well. It is not advisable to gather Strawberries when they are wet, for then they bruise so much more easily, and it is most difficult to pack them safely.

From time to time there has been much discussion as to what is the proper number of



STRAWBERRY "LEADER" IN A MIDDLESEX GARDEN.

years to keep a plantation of Strawberries. Some used to advocate two years, some three, while some advised destroying the plants after the first year's crop was gathered. It is, I think, generally admitted now that Strawberry plants produce the best fruits when one and two years old, but that in the third year a greater quantity of fruits is obtained, but they are much smaller; they are just as sweet however. The third year's crop is valuable for preserving, and those who make use of Strawberries for this purpose should certainly keep their plants three years.

The other illustration given of a plantation of the variety Leader, shows how well this old Strawberry fruits, and that its value is still recognised by some at least of our cultivators. The photograph from which this illustration was made was taken in a Middlesex garden, near London, so that it has an additional interest in showing what are practically town-grown Strawberry plants.

A. P. H.

SOCIETIES.

SUTTON ROSE SHOW.

ON the whole there was a very good exhibition on the 4th inst. in the grounds of Manor Park School. The committee and Mr. Nightingale deserve congratulations on the success of their efforts, and the day proved ideal for an event of this kind. The sale of flowers in aid of the funds of the Cottage Hospital, and a pastoral play, are two features of the occasion to which allusion should be made.

DIVISION A.—OPEN TO ALL AMATEURS.

The first class on the schedule (the Coronation Cup class) required a dozen flowers in distinct sorts, and Mr. A. Tate's set from his extensive collection at Downside, Leatherhead, was first, though Mr. E. B. Lindsell made a really good bid for the leading honours, which he must have missed by only a few points. The third place out of five entries fell to Mr. E. M. Eversfield with small flowers.

For two dozen blooms, Mr. Lindsell staged the best, though these were below the average in quality of the foregoing twelve; Mr. A. Slaughter was second with a very poor lot; and the third prize went to Colonel T. H. Pitt.

For eighteen varieties Mr. Tate beat Mr. E. M. Eversfield, and Mr. G. H. Baxter followed third. Messrs. Tate and Lindsell were placed in this order for the eight distinct trebles, the two sets making a favourable show, and magnificent samples were seen of Beattie Brown.

Five competitors staged each a dozen Teas and Noisettes in Class 5, Rev. F. R. Burnside leading against Mr. Tate, second; Mr. Eversfield, third.

DIVISION B.—GROWERS OF LESS THAN 1,000 PLANTS.

In the sixth class nine distinct blooms were required, and Mr. J. T. Thompson arranged a highly creditable selection, the second place falling to Mr. G. H. Baxter; Mr. E. Wilkins was third.

For the four distinct, in trebles, Mr. Thompson was first, Mr. Baxter being a good second, and Mr. Wilkins again came third. This was one of the best classes for quality of blooms in the exhibition.

In Division C, for a collection of garden Roses, there were no entries.

DIVISION D.—NURSERYMEN'S OPEN CLASS.

A brilliant array of five separate entries was furnished under Class 10 for thirty-six varieties, the first prize falling to Messrs. D. Prior and Son with generally very good flowers; Messrs. R. Harkness and Co. of Hitchin were second; and the third award fell to Messrs. B. R. Cant and Sons.

Messrs. B. R. Cant and Sons won premier place for the twenty-four distinct, having capital Roses. Second out of five came Messrs. Prior and Son. Messrs. R. Harkness and Co. were third.

Messrs. F. Cant and Co. led for the twelve Teas and Noisettes, and Messrs. Prior were again second. Messrs. Paul and Son, of Cheshunt, followed third.

DIVISION E.—LOCAL CLASSES.

The competition in this section was moderate, but some good and well set up flowers were on view. The leading awards were taken by E. J. Holland, Esq., for twelve blooms

in nine varieties. Second, A. E. Farnden, Esq. Mrs. West had the best nine distinct, and was second to E. J. Holland, Esq., for six Teas. K. H. Gifford, Esq., had the best half-dozen of one variety with Mrs. Laing, and E. E. Grimeson, Esq., came next with the same variety. K. Gifford, Esq., again won for the six distinct sorts in class 17.

ROYAL HORTICULTURAL SOCIETY. ORCHID COMMITTEE.

PRESENT: H. J. Little, Esq. (in the chair), Messrs. J. O'Brien, D. B. Crawshaw, H. T. Pitt, W. B. xall, M. Gleeson, W. H. Young, E. Hill, H. A. Tracy, W. H. White, and H. A. Biley.

At the tall end of the season one does not expect to see many Orchids, neither were they strongly represented on this occasion. The only group shown was from Messrs. Sander and Sons, St. Albans. This was chiefly noticeable for the hybrid *Laelio-Cattleyas*, which differed considerably in form as well as colour, the most attractive plants being *Laelio-Cattleya Martinetti*, L.-C. *Martinetti splendendum*, L.-C. *atro-rubens*, L.-C. *canhamiana*, C. *Mossiae reinckiana*, and *Oncidium m-cranthum*.

From Mr. W. H. Young, Orchid grower to Sir F. Wigan, Clare Lawn, East Sheen, came a nice little display of out *Sobralias*, which included *Wigania*, S. *Veitchii aurea*, S. *macrantha*, S. *sanguinea*, and S. *xantholeuca*, with a nice form of *Cypripedium Godefroyae leucocochlidum*.

A small group of *Anotocillia* came from Messrs. W. Bull and Sons, Chelsea, which were well grown and staged with appropriate foliage.

FRUIT AND VEGETABLE COMMITTEE.

Present: George Bunyard, Esq. (chairman), Messrs. J. Cheal, W. Bates, S. Mortimer, Alex. Dean, T. Coomber, C. G. A. Nix, James Smith, F. L. Lane, G. Wythes, J. H. Veitch, A. H. Pearson, H. Balderson, and H. Ealing. The duties of this committee continue to be of a light character.

On this occasion Mr. Thomas Coomber, gardener to Lord Liangstock, The Hendre, Monmouth, staged eighteen Queen Pines in superb condition. They were of good size and splendidly finished. The same exhibitor also staged a good dish of Peaches, named *Raymakers*, the fruits being large and well coloured.

Messrs. Hugh Low and Co., Bush Hill Park, sent a fine fruiting specimen of White Marsellies Fig and two pot Vines, Syrian and Lady Hastings.

Messrs. G. Bunyard and Co., Maidstone, made an interesting exhibit of Strawberries in chip baskets. The fruits were good typical specimens, beautifully packed. The varieties were President, Royal Sovereign, Trollope's Victoria (soft), Sir Joseph Paxton, Louis Gantier, Waterloo, Leader, Monarch, Goliath, Trafalgar, Wallruff (a nice-looking variety), and Dr. Hogg.

From Messrs. Veitch and Son, Exeter, came a good dish of Peas, called Western Express. Specimens of the growth were also staged.

The Horticultural College, Swanley, staged a few seedling Melons and a nice dish of Lady Sudeley Apples.

Mr. George Fowler, 78, Bank Street, Maidstone, exhibited bottling appliances, also a few examples of bottled fruits.

NEW FRUIT.

Melon President Loubet.—A medium-sized fruit, nicely netted, flesh scarlet, and of fair flavour. This was shown by Mr. J. Suell. Award of merit.

HANLEY HORTICULTURAL FETE.

THE seventh annual show was held in Hanley Park on July 1 and 2, and was very successful, one of the best shows ever held there. Mr. Kent, the secretary, deserves congratulations.

PLANTS.

Messrs. Cypher, Cheltenham, were first for the large group; Mr. Vane, Levington, second; and Mr. J. Read, Brethay Hall Gardens, third. Mr. J. Robinson, Altrincham, had the best group of Orchids, and Messrs. Cypher were second. Messrs. Cypher cleared the board for six specimen plants in flower, six flowering and six foliage plants, eight Orchids, and six Palms.

ROSES.

Messrs. Harkness and Co. won first prize in the great class for seventy-two blooms; Mr. George Mount, Canterbury, was second; and Messrs. G. and W. Burch, Peterborough, third.

For forty-eight blooms, distinct: The King's Acre Nursery Company, Hereford, were first; Messrs. Burch were second; and Mr. G. Mount, third.

Messrs. Harkness were first for thirty-six blooms (trebles); second, Messrs. Burch; third, Mr. G. Mount.

Twelve blooms, distinct: First, Messrs. Jarman and Co., Chard; second, Messrs. Townsend and Son; third, Mr. W. H. Frettingham.

Twelve blooms (one variety): First, The King's Acre Nursery Company, Hereford; second, Messrs. Townsend and Sons; third, Mr. G. Mount. Messrs. Townsend were first for garden Roses; The King's Acre Company, second.

Messrs. Harkness were first for a collection of hardy flowers with a brilliant display; second, Messrs. Gibson and Co., Bedale; third, Mr. J. H. White, Worcester.

FRUIT.

Mr. Jordan, Impney Hall Gardens, Droitwich, was first for the decorated dessert table (114 points); second, Mr. Goodacre (110 points); third, Mr. J. Read (89 points).

Twelve dishes of fruit: First, Mr. Jordan; second, Mr. McPherson; third, Mr. Goodacre. Mr. T. Bannerman was first for six dishes of fruit; Mr. J. Read, second; and Mr. Nicholls, third.

Mr. Nicholls was victorious for his bunches of Grapes of both black and white; Mr. J. Read was second; Mr. Goodacre third. Mr. A. H. Hall won for two bunches of black Hamburgh; Mr. Goodacre, second; and Mr. Nicholls, third.

Mr. Bannerman was first for any other black, and also for two bunches of Muscat of Alexandria, as well as for any other white.

GOVERNMENT ENQUIRY INTO FRUIT PESTS.

A DEPUTATION from the National Fruit Growers' Federation and the Herefordshire Association, waited on Lord Onslow recently, for the purpose of calling his lordship's attention to the very serious losses sustained by the industry through the ravages of blight and insect pests, and urging him to grant a Government Enquiry into the whole subject, with a view to concerted action for their eradication. The deputation was introduced by Sir James Rankin, Bart., M.P., and Colonel C. W. Long, M.P. (President of the National Fruit Growers' Federation). Messrs. Radcliffe Cooke, C. D. Wise, W. Horne, A. Grant, H. F. Getting, and J. Riley were all present, and spoke on the subject. Sir James Rankin referred to the Bill introduced by him in the present session, which provided that all nurserymen's stock should be inspected, and that compulsory dressing should be resorted to in their case.

This Bill has been withdrawn, and there appears to be a general feeling among growers that any compulsory measure, if adopted, should be extended to orchards as well as nursery stock. The members of the deputation were, however, agreed that more information was required before legislation is resorted to, and they therefore pressed on the President of the Board the necessity for an official enquiry into the nature of the various orchard pests, and the extent to which they would be preventable, as well as to how compulsory dressing would be regarded by growers. His lordship said, in reply, that he quite recognised the importance of the subject, and was very glad to have heard the views of the deputation, with which he generally agreed, and promised that a Departmental Enquiry should be held, commencing work after the coming recess.

ROSE EXHIBITION AT REGENT'S PARK.

IN the collection of growing and cut Roses which Messrs. William Paul and Son, of Waltham Cross, had on view at the Royal Botanic Gardens, Regent's Park, from June 30 to July 4, we noticed the following excellent introductions of the firm, which are sure to be found in all good collections. First to attract our notice was the beautiful

Chameleam, a flower remarkable for its colouring. As seen here it gave us the impression of being an Anna Olivier with a very heavy brownish red blotch at the base of each petal, and when shown in masses the effect was most telling, as doubtless it will be when planted in beds.

Dainty is another of the very attractive decorative Roses Messrs. William Paul and Son have introduced. Here we have quite a distinct shade of yellow, the prevailing hue being that of the yolk of an egg, but the edging of carmine gives the flower a very dainty appearance.

Elizabeth Killo, too, is a very lovely variety. Any Rose bearing a resemblance to Mme. Abel Chatenay is sure to gain notice. In this case we have the charming colour of the latter, and, to some extent, the Cactus Dahlia-like formation, but the plant is of the even growth of Mme. Jules Grolez. It will certainly prove one of our most useful bedding Roses.

Morning Glow is well named. The glow of the bloom is quite dazzling. A quantity grouped together in the garden would be most conspicuous.

Tennyson was shown in superb form. The splendid finish to the massive, very double flowers makes it an ideal exhibitor's Rose, but it is not only as an exhibitor's Rose that it will be grown. Where a dwarf bedding sort with large flowers is wanted it will be most useful.

Corona we much admired. The warm flush of a most delicate pink shade was delightfully brought out upon the very expansive flowers, some of them being fully 6 inches across, and as flat as a Camellia. This, too, should be a useful bedding Rose.

Badidea is a variety already forging ahead, and we shall not be surprised if it is seen in every prize stand next year. The rich pink colour and grand deep petals are attractive features. We are informed that this, one of Messrs. William Paul and Son's best introductions, is also a fine decorative garden Rose. Many other new Roses, including Corallina, the beautiful Sulphurea, the Alexandria, Salmona, together with older varieties of the firm's introduction, such as Enchantress, Queen Mab, Sylph, Sappho, White Lady, Olo, Spenser, Crown Prince, Pride of Waltham, &c., were well represented, each variety in a basket containing some 30 or 40 blooms, and it appeared to us that this was one of the most natural ways in which Roses could be displayed, in order to give the public a good idea of their true decorative value.

Other good new Roses were also on view, such as the superb Mildred Grant, Frau Karl Druschki, Soleil d'Or, Robert Scott, Dr. F. Guyon, Souvenir de Pierre Notting, and in fact nearly every new Rose of merit was exhibited here during the four days of the special show.

Messrs. William Paul and Son are to be congratulated in bringing together and maintaining such a large collection as was here displayed, the beauty of all being much enhanced by the charming surroundings of these lovely gardens.

CROYDON HORTICULTURAL SHOW.

THE thirty-sixth annual summer show of this society was held on July 8, and an excellent display resulted. The Roses were the best feature.

OPEN ROSE CLASSES.

Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, were first in the principal Rose class (forty-eight blooms, distinct), thereby winning the National Rose Society's silver-gilt medal. They showed blooms of most uniform quality. Messrs. D. Prior and Son, Colchester, were second, and Messrs. Frank Cant and Co., Colchester, were third. Most of the blooms in this class were large and good.

Twenty-four Roses, distinct (trebles): Messrs. B. R. Cant and Sons were again first; Frau Karl Druschki was first shown; Messrs. D. Prior and Son, being a good second; Messrs. Paul and Son, Cheshunt, were third.

Mr. Thomas Butcher, The Nurseries, South Norwood, was first in another class for twenty-four blooms, distinct; Mr. Will Taylor, Hampton, second, and Mr. E. J. Jefferys, West Croydon, third.

Messrs. Frank Cant and Co. were first for eighteen (distinct), Mrs. Edward Mawley being a lovely bloom; Messrs. Prior were second, and Messrs. B. R. Cant and Son third.

Messrs. D. Prior and Son, Colchester, were first for twelve blooms of one variety, showing lovely *Bessie Brown*, a splendid lot; Messrs. Frank Cant and Co. were next with Frau Karl Druschki in very good form; third, Messrs. B. R. Cant and Sons, with Her Majesty.

Messrs. Frank Cant and Co. were first for twelve Teas, a variety, with very good and well coloured flowers; Mrs. Mawley; second, Messrs. D. Prior with Maman Cochet, third, Messrs. B. R. Cant and Sons with Medea.

Mr. Will Taylor was first for twelve bunches of gaul Roses. There were no more exhibits in this class.

AMATEURS.

Thirty-six blooms, distinct (challenge cup competition): First, Alfred Tate, Esq., Leatherhead, with a stand that contained some very fine blooms. This exhibit contained in best Rose in the show (Mrs. John Laing, silver-medal); second, Mrs. Hayward, Woodhatch Lodge, Reigate; third, E. M. Crossfield, Esq., Denne Park, Horsham.

Twenty-four Roses, distinct: First, Mrs. Hayward, Marn Cochet being the best; second, E. M. Crossfield, Esq.; third, A. Slaughter, Esq., Steyning.

Eighteen Teas: First, E. M. Crossfield, Esq.; second, Mrs. Hayward; third, A. Slaughter, Esq. These blooms were of moderate quality only.

Six blooms (trebles): First, Mrs. Hayward; the first Marchioness of Londonderry and Maman Cochet were second, A. G. Hammond, Esq., Cambrian House, Rugeley Hill; third, E. M. Crossfield, Esq.

Twelve Roses, one variety: First, Mrs. Hayward, with good Her Majesty; second, Keppel H. Gifford, Esq.; third, E. M. Crossfield, Esq.

Twelve Roses, distinct: First, Edward Mawley, B. Berkhamstead, White Maman Cochet being a lovely bloom; second, F. Wellesley, Esq., Westfield, Woking; third, E. M. Crossfield, Esq.

Twelve Teas, distinct: First, F. Wellesley, Esq., with very good blooms; second, E. M. Crossfield, Esq.; third, A. Slaughter, Esq.

LOCAL ROSE CLASSES.

Twelve Roses, distinct: First (challenge bowl for the year and the National Rose Society's silver-gilt medal), F. A. Amenden, Esq., 22, Chichester Road; second, C. C. W. Esq., Chichester Road.

Six H. P. Roses, distinct: First, C. T. Moon, Esq., Camp Road; second, F. W. Amenden, Esq.

Six Teas, distinct: First, Miss Thrale, Shirley Ex Shirley. This stand contained the best bloom in Edward Mawley in the local classes, which was given a silver medal.

MISCELLANEOUS.

The first prize for table decorations was won by E. Edith M. Robinson, Hilsdale, Purley, with elegantly arranged Pink Carnations and Gypsophila.

Twenty-four bunches Sweet Peas: First, Mr. W. Lind, The Gardens, Marden Park; second, C. B. Crisp, Chichester Road; third, Miss Beckford, Oxford Road, Hants.

Twelve bunches Sweet Peas: First, F. W. Amenden, Esq.; Messrs. J. Laing and Son, Forest Hill, were first for group of plants, showing very well, and winning the silver gilt medal.

For a small group of plants F. A. Radford, Esq., Southhurst, South Hill Park Road was first with a pretty display of the tuberous Begonias were excellent.

The first prize for a group 10 feet by 7 feet was won by F. Link, Esq., J.P., Homedale Park Hill. It contained some splendid Gloxinias.

NON-COMPETITIVE EXHIBITS.

Mr. Butcher, The Nurseries, South Norwood, showed a group of Palms and flowering plants; Messrs. Campbell and Sons exhibited their brilliant Cannas; Messrs. J. Peet and Sons sent Sweet Peas; Messrs. J. Cheal and Son, Cheshunt, showed hardy flowers, and Messrs. John Laing, showed hardy flowers extensively. There were Begonias from Mr. B. R. Cant from Messrs. Paul and Son, Cheshunt, and from Mrs. Jackman, Woking, hardy flowers and Water Lilies from Mrs. Amos Perry, and hardy flowers from Messrs. T. & G. Limited.

Strawberries and Tomatoes were the chief features in the fruit and vegetable classes, while the tent devoted to the cottagers' exhibits was of much interest and contained excellent produce.

WOLVERHAMPTON FLORAL FETE.

ONE of those circumstances over which one has no control occurred at the Wolverhampton Floral Fete on the evening of Monday, the 8th inst., when the wind rose and forced the authorities to lower all the tents. Happily, in the order to the big marquees, wherein nearly all the main poles were broken, no one was injured; but it was impossible to do anything in regard to staying to be done overnight. In the opening day of the exhibition the tents were rapidly put up and by nine o'clock all were standing, though no sleep was then erected. However, exhibitors and committees worked with such unanimity that the judging of the show was commenced at 11.45 a.m., only an hour and a quarter after the proper time. It was in the non-competitive specimen plant, and group sections that the greatest and most occurred, and when our representative left late in the afternoon the groups for which Wolverhampton has become

famous were not arranged, and we are forced to omit any further reference to them in this report. While condoling with the managers upon the trouble which has come upon them, we must congratulate them upon the manner in which it was met and largely overcome. There was no hurry or excitement, the work being pushed forward with steady persistency. As has been said, the Rose section was ready for the Judges at 11.45 a.m., and the display was one of the finest that has been seen this year. There were many hundreds of blooms staged by amateur and professional growers, and throughout there was an evenness of quality. In the amateurs' division the chief honours fell to the Rev. J. H. Pemberton, and in the nurserymen's section to Messrs. E. Harkness and Co.

AMATEURS.

The chief class in this division was for thirty-six single trusses, distinct, and the place of honour was secured by the Rev. J. H. Pemberton, Havering-atte-Bower, Romford, whose beautiful exhibit comprised Mrs. E. G. Sharman Crawford, Ulrich Brunner, Marchioness of Londonderry, Horace Vernet, Mrs. J. Laing, Countess of Caledon, Caroline Testout, Françoise Michelson, and Papa Lambert. Mr. R. Foley Hobbs, Worcester, was placed second, and had charming blooms of Tom Wood, Mrs. John Laing, White Maman Cochet, Kaiserin Augusta Victoria, Caroline Testout, Bessie Brown, and Frau Karl Druschki amongst others. Mr. W. Boyes, Derby, was third.

For six blooms (trebles) the Rev. J. H. Pemberton won with Bessie Brown, Charles Lefebvre, Mrs. J. Laing, A. K. Williams, Kaiserin Augusta Victoria, and Caroline Testout. Mr. M. Whittle, Leicester, who was second, had Mrs. E. Mawley in grand condition. Mr. F. Dennison, Kenilworth, was third.

The Rev. J. H. Pemberton was again first for twenty-four distinct. Messrs. R. Foley Hobbs and M. Whittle were second and third.

For twelve, distinct, the prize-winners were Messrs. M. Whittle, F. Dennison, and the Rev. J. H. Pemberton, in the order in which their names are given.

For twelve Teas, distinct, Miss Whittle was easily first with Bridemaid, Medea, White Maman Cochet, The Queen, Mrs. E. Mawley, Princess of Wales, Mme. Cusin, Comtesse de Nadailac, and Caroline Kuster. Mr. R. Foley Hobbs was second, and Mrs. F. A. George, Worcester, third.

NURSERYMEN.

The great class of the show was that for seventy-two, distinct, and there were no less than six competitors, of whom the Metropolitan champions, Messrs. E. Harkness and Co., were placed first with a magnificent stand of fresh bright blooms. Some of the varieties best represented were Ulrich Brunner, White Lady, Charles Lamb, Papa Lambert, Marie Baumann, Mrs. J. Laing, Gustave Piganeau, Heinrich Schultze, Marchioness of Dufferin, E. Y. Teas, Muriel Grahame, Horace Vernet, Mrs. Harkness, Alfred Cuthbert, Captain Christy, Marie Verdier, Dr. Sewell, Mrs. W. J. Grant, Comtesse de Ludre, Marchal Niel, J. S. Mill, Innocente Pirola, and Mme. E. Verdier. Messrs. B. R. Cant and Sons, Colchester, were second, some of their best blooms being A. K. Williams, Mildred Grant, Mme. Cusin, Comtesse de Nadailac, Catherine Mermet, Ben Cant, and Souvenir d'Elise Vardon; Messrs. D. Prior and Sons third.

In the class for forty-eight, distinct, Messrs. E. Harkness and Co. were again ahead. Mildred Grant, Ulrich Brunner, Papa Lambert, Star of Waltham, Her Majesty, E. Y. Teas, Bessie Brown, Suzanne Marie Rodocanachi, Mme. Delville, and Frau Karl Druschki were very fine. Mr. G. Mount was second, and Messrs. B. R. Cant and Sons third.

Mr. G. Mount secured the lead for eight trebles with grand examples of Mrs. W. J. Grant, Mildred Grant, Ulrich Brunner, Frau Karl Druschki, Marchioness of Londonderry, Mrs. J. Laing, Bessie Brown, and Caroline Testout. Mr. G. Mount also won for twelve bunches of Roses, some of the best being Captain Hayward, Liberty, Mrs. W. J. Grant, General Jacquemont, and Ulrich Brunner. Mr. G. Prince was second, and the King's Acre Nurserymen, Hereford, third.

In the class for twelve new Roses, Messrs. B. R. Cant and Sons were first with a handsome set; Messrs. A. Dickson and Sons, Newtownards, and Messrs. Perkins and Sons, Coventry, were second and third.

For twelve dark Roses, one variety, Mr. G. Mount was first with Liberty in wonderful colour; Messrs. D. Prior and Sons second with A. K. Williams, and the King's Acre Nurserymen third with the same variety. For a light Rose Mr. G. Prince was first with superb specimens of Mildred Grant; Messrs. Townsend and Son second, and Messrs. D. Prior and Sons third.

In the class for twenty-four, distinct, Mr. G. Mount was first with Ulrich Brunner, Mildred Grant, Lady Moyra sauciere, Frau Karl Druschki, Mrs. J. Laing, Suzanne Marie Rodocanachi, Marquise Litta, and others. Messrs. J. Townsend and Son were second, and Mr. G. Prince third, the last-named showing very strongly in both classes for six and Noisettes.

Sweet Peas, herbaceous flowers, Pansies, and Violas were all grandly staged, while specimen plants and Begonias made splendid show in themselves. Fruits and vegetables were not creditable, some of our best growers showing in both cases. The non-competitive section was magnificent, and comprised practically everything that could be shown. Messrs. Webb and Sons write that they were awarded a large gold medal for their exhibit of Gloxinias, &c.

MANCHESTER ROSE SHOW.

ITS annual fixture fully sustained its high reputation on July 11 as one of the finest gatherings of the season. The rooms were considered to be quite equal to anything staged during the year. The competition also proved keen, in some cases ten entries being staged. The day proved an ideal one, warm, but unless the Roses were therefore attractive till closing time.

OPEN CLASSES.

Sixty distinct single trusses brought six competitors, Messrs. Harkness and Co. staging the premier lot. They had fair-

sized fresh blooms, the best being Comte de Raimband, Her Majesty, La France de 80, Gustave Piganeau, Frau Karl Druschki, Earl of Dufferin, Gladys Harkness, Mildred Grant, A. K. Williams, Bessie Brown, Comte de Ludre, Maman Cochet, Mrs. John Laing, Golden Gate, and others; second, Messrs. Alex. Dickson and Sons, Limited, Newtownards, with some fine blooms of Mildred Grant, Charles Lefebvre, Duke of Wellington, A. K. Williams, and others; third, Messrs. Frank Cant and Co., Colchester.

For thirty-six distinct trusses: Messrs. Harkness were again first, with a very fine stand; second, Messrs. Prior and Sons, Colchester; third, Messrs. A. Dickson and Sons. There were several more competitors.

Twenty-four Teas or Noisettes: Messrs. Frank Cant and Co., Colchester, won with a fine lot, the best being Maman Cochet, Mme. de Watteville, Muriel Grahame, Etiole de Lyon, and others; second, Mr. George Prince, Longworth, with fine blooms of Mrs. E. Mawley, White Maman Cochet, Maman Cochet, Hon. Edith Gifford, and Mme. Cusin. Messrs. Prior and Sons won the remaining award.

Twelve Teas or Noisettes: Mr. G. Prince led with a fine even box of varieties, already named. Messrs. Frank Cant and Co. and Messrs. Prior and Sons were placed in the order named.

Twelve trusses of any white or yellow Rose: Mr. G. Prince secured the chief honour with very fine White Maman Cochet. Messrs. Harkness were second with Frau Karl Druschki; third, Messrs. Prior with White Maman Cochet.

Twelve single trusses any light colour: Messrs. A. Dickson and Sons won with grand blooms of Mildred Grant; Messrs. J. Townsend and Sons, Worcester, were second with Bessie Brown; Messrs. Frank Cant and Co. third with Mildred Grant.

Twelve single trusses of any crimson: The King's Acre Nursery Co., Hereford, secured the leading award with massive blooms of A. K. Williams; Mr. Hugh Dickson, Belfast, was second with well-formed blooms of Hugh Dickson; the remaining award went to Messrs. Prior and Son for A. K. Williams.

AMATEURS.

Twenty-four trusses, distinct: E. B. Lindsell, Esq., took the lead with a fine lot. Especially good were Ulrich Brunner, Bessie Brown, Horace Vernet, A. K. Williams, Victor Hugo, Maman Cochet, Charles Lefebvre, and Duchess of Portland; second, the Rev. J. H. Pemberton; Conway Jones, Esq., was third.

Twelve distinct varieties: First, E. B. Lindsell, Esq., with large blooms; R. Foley Hobbs, Esq., and the Rev. J. H. Pemberton second and third.

Eighteen Teas or Noisettes, distinct: Conway Jones, Esq., led with fair sized pretty blooms. R. Foley Hobbs, Esq., and Richard Park, Esq., were placed as named.

Twelve Teas or Noisettes brought five competitors, the prize takers being Messrs. R. Park, Conway Jones, and E. B. Lindsell.

Twelve single trusses of any white or yellow: First, the Rev. J. H. Pemberton, with Bessie Brown in good form. F. R. Curtis, Esq., was second; H. V. Machin, Esq., third.

Twelve blooms of any light coloured variety: R. Park, Esq., was first with Bessie Brown; E. B. Lindsell, Esq., second, with large blooms of Her Majesty, and R. Foley Hobbs, Esq., third, with Bessie Brown.

Twelve blooms of any crimson: First, the Rev. J. H. Pemberton with Charles Lefebvre. H. V. Machin, Esq., with Gustave Piganeau and F. R. Curtis, Esq., with Ulrich Brunner were second and third.

For district grown Roses, twelve varieties, C. Burgess, Esq., was first, and R. Hall, Esq. second; the first and second prize winners for six being the same exhibitors.

MISCELLANEOUS.

For a display of Roses, Mr. J. Matlock was placed first. His exhibit comprised some lovely single varieties; Messrs. J. Townsend were second with a somewhat formal display; Mr. G. Prince third, having grand blooms of Liberty, Mme. J. Grolex, and others.

For the best arranged basket of Roses, Messrs. Perkins and Sons, Coventry, won; Mrs. J. Nixon and Miss Ada Stanley took the remaining prizes.

The society's silver medal was awarded to Messrs. Alex. Dickson and Sons, Newtownards, for Mildred Grant as the best H.P. or H.T., and Mr. G. Prince had a similar award for White Maman Cochet as the best Tea or Noisette.

For the best collection of Sweet Peas, Mr. John Derbyshire secured the silver medal for a meritorious lot of about 100 varieties. In the class for twelve varieties the same exhibitor was first, a new variety called Dainty having a white ground with a rosy pink edge, was included. For not less than twenty-five varieties, Mr. F. Smith secured the chief honour.

Of non-competitive exhibits, Messrs. Jones and Sons, Shrewsbury, were awarded the silver-gilt medal for a fine collection of Sweet Peas.

Certificates of merit were awarded to Mr. W. L. Pattison for Violas; Messrs. Caldwell and Sons for Roses and herbaceous cut flowers; Mr. J. W. Williamson for a very fine specimen of Lilium auratum; and to Mr. J. Pilling for Violas.

At the luncheon several members of the District Council were present, and in replying to the toast of the visitors, an announcement was made that it was desired by the council that the gardens should remain for all time in their present form. Mr. P. Weathers, as usual, made most satisfactory arrangements both for the exhibitors and the numerous company of visitors who patronised the exhibition.

EAST ANGLIAN HORTICULTURAL CLUB.

THERE was a large gathering of East Anglians at the July meeting to hear a discourse by Mr. G. Davison, of Westwick House Gardens, upon "Herbaceous Flowers." Mr. Davison has a wide repute for growing these flowers well by the fact of his having taken for several years in succession first prize for forty-eight bunches at the Norfolk Society's Show. The

way he talked of the plants and their habitats at once showed his love and deep interest for them. He said that to talk of a herbaceous garden was to talk of a garden of flowers, a garden where, from the Aconite to the Helioleba, something fresh was to be found daily. He told also what success was to be obtained by learning the natural habitats of plants and making the position in the garden as like them as possible. Make groups of this class of flowers bold and imposing. Be careful to use only the best portions of the plants for replanting. Mr. Davison also made allusion to the beauty of the flowering shrubs. He also told of the wayside flowers and the possibilities of working these up to good. The following were some of the specimens Mr. Davison had filed the table of the room with and to which he occasionally made reference: Lilium giganteum, Lathyrus latifolius grandiflorus albus, new seedling Delphiniums of many shades and massive spikes, Orchis foliosa, Paeonies, Tropaeolum, Eremurus Bungei, Enothera speciosa roses, and a good many others.

A hearty vote of thanks was accorded Mr. Davison for his instructive discourse. A capital discussion followed in which Messrs. T. B. Field, E. Peake, J. C. Abel, the president, and others took part. The exhibition tables were well filled with good produce, in the competitive classes Roses and Peas (edible) being exceptionally good.

Six Tea Roses, staged by Mr. F. Williams, gardener to Mr. Louis Tillett were the best in that class. Mr. C. Matthews, gardener to L. S. Willett, Esq., Thorpe, being first for six H.P.'s.

An award of merit was given by the floral committee to a grand salmon zonal Pelargonium seedling raised by Mr. D. Howlett, gardener to T. Chaplin, Esq., Thorpe Hamlet. Mr. Henry Dobbie, Pinebanks Gardens, Thorpe St. Andrew, secured Mr. E. Peake's prize for six specimens of wild flowers correctly named.

Mr. Robert Holmes, Tuckwood Farm, Norwich, showed a decided new break in the Shirley Poppies with full double and semi-doubles of pretty shades which are coming true from seed. The Shasta Daisy, too, is well grown by Mr. Holmes, and he staged half a score bunches, quite distinct in form, some being 4 inches across. Mr. C. H. Fox, gardener to Sir Edward Mansel, Bart., Catton House, had a bunch of exceptionally good seedling Delphiniums, very large in the individual blossoms and bold spikes.

The competition for the cup presented by Mr. E. T. Boardman, Town Close, Norwich, was commenced, Mr. C. H. Hines, Trowse, gaining the most points. The second stage of the cup presented by Mrs. Louis Tillett, Old Catton, was also decided, the vegetables being so good as to cause a tie between Mr. C. H. Hines, Trowse, and Mr. W. Eash, Thorpe. It should be mentioned, also, that Mr. G. Davison had brought up large patches of the Bog Pimpernel and Monotropa hypophysis, the latter a most curious root parasite.

NATIONAL AMATEUR GARDENERS' ASSOCIATION.

THE conversation and exhibition of this association took place on Tuesday, the 7th inst., and was quite equal to, if not distinctly in advance of, many of its predecessors. Two large halls were needed to display the garden produce of its members, and the exhibits in many instances were of a high order of merit.

The table decorations of the ladies were a very special feature, and on this occasion several handsome prizes were given by generous donors. The chief class was won by Mrs. G. W. Cook, Muswell Hill, N., who had a very dainty arrangement of Cecile Brunner Rose and appropriate foliage; Mrs. Oliver, Tollington Park, N., was second with a superb arrangement of Iceland Poppies and Asparagus; and Miss Wright, Nigel Road, Peckham, S.E., was placed third. In another class for prizes of less value, Miss Wright was first with an arrangement of red Poppies and Oaks, and Mrs. Cook second with pretty decorative Roses. In another class of a similar character Mrs. A. Taylor, East Finchley, N., was first with Iceland Poppies, &c., and Miss Welch second with pale pink Carnations. Miss Oliver was first with a large vase of flowers, set up for artistic effect, and Miss Grose second. Miss Welch led in the class for a vase of Sweet Peas, and Mrs. Taylor was second.

The Sweet Pea championship for the trophy offered by Mr. R. Sydenham, Birmingham, was won by Mr. D. B. Crane, Highgate, N., who had large blooms of good colour of most of the newer and better sorts set up in pleasing fashion. In this case the patent vases for displaying Sweet Peas were used by the winner, and much may be said in their favour. For the "Needs" Sweet Pea championship several of the exhibitors were disqualified, and in this instance Mr. Oliver, Tollington Park, N., was second. Of the "Ichemic" championship for cut flowers, set up on space 5 feet by 2 feet, Mr. D. B. Crane was a good winner, staging a most representative collection of hardy flowers in season, and tastefully displayed.

Mr. G. W. Cook, Muswell Hill, N., easily secured the silver medal for six bunches of garden Roses. These were beautifully staged, and the flowers were of a high order of merit.

Mr. T. W. Sanders, F.L.S. (the president) took the chair at the conversation and concert, and it was quite late before the company dispersed after the close of a most enjoyable time.

FRENCH HORTICULTURAL SOCIETY OF LONDON.

ON Saturday last the members of the above society were invited by Mr. Peter Kay, the eminent Grape culturist of Finchley, to visit his establishment there. The party, consisting altogether of about fifty persons of various nationalities, English and French predominating, assembled on the ground about 4 p.m. They were met by Mr. Thomas Bevan, who conducted the party through the various greenhouses, and who gave information as to the extent of Mr. Kay's culture, the method by which the whole establishment was supplied with water, independent entirely of the local water company, and much other technical matter. Among the visitors were Mr. George Schneider, Mr. Ingamells, Mr.

Witty, Mr. Harman Payne and Son, Mr. Cutbush and Son, Mr. Drost, Mr. Guillod, Mr. R. H. Pearson, Mr. Michle, and many of the young French members.

The inspection of the establishment being ended, the company was then conducted to the lawn behind Mr. Kay's residence, where tables were spread and a light meal provided. Here the visitors remained for some time, enjoying the open air entertainment in the heartiest good humour, frequent references being made to the recent demonstrations of friendly regard that have taken place between the two nations, which, as one speaker pointed out, are no new thing between English and French horticulturists, who have always held each other in high esteem.

Mrs. Kay, upon the invitation of her husband, proceeded in fluent and excellent French to propose the health of M. Loubet, which was cordially received. Mr. G. Schneider proposed the health of the King and other members of the Royal family, both of these toasts being duly honoured by the singing of the respective national anthems.

The chairman, Mr. Peter Kay, expressed his delight at seeing so many friends of the society present, reminding them that he had been awarded gold medals in France for his Grapes, and was also elected a member of the National Horticultural Society of France. He proposed the toast of success to the French Horticultural Society of London, and would ask its president, Mr. Schneider, to reply. Mr. Schneider, in returning thanks, dwelt briefly on the aim and objects of the society, expressing gratitude for their reception by Mr. and Mrs. Kay that afternoon, and to all friends who had helped in the work of their society, which now numbered 600 members. Other toasts were responded to by Mr. Thomas Bevan, Mr. Harman Payne, Mr. Hunt, a visitor from New Zealand, and others. Altogether the meeting was a very cordial and enjoyable one. The weather was perfect, and Mr. and Mrs. Peter Kay's hospitality was much appreciated, and will long be remembered by every one present.

ROMFORD AND ESSEX HORTICULTURAL SOCIETY.

THE fifty-fifth annual exhibition of this society was held in a meadow overlooking Gilden Hall Park, Romford, on Thursday, July 9. To protect their position financially, the executive had deleted from their schedule of prizes several large and important classes, but, notwithstanding the display was of a most interesting description. In some instances, however, the competition left something to be desired, but this may rightly be attributed to the vagaries of the weather this season.

PLANTS.

For the best and most tastefully arranged group, with a circular front, 10 feet by 6 feet, Mr. A. C. Philbrick, gardener to Mrs. Mashier, Marshall's Park, Romford, had the best exhibit. The arrangement was pretty and pleasing and the plants were well disposed. Mr. H. C. Chaffe, gardener to H. B. Michell, Esq., Eastbury House, was a good second, although some of the more important points of the group were not well finished.

The five guinea challenge cup presented by the late president was won outright on this season by Mr. W. Richardson, gardener to F. Green, Esq., Hainault Lodge, for a similar group to the last mentioned, but in this instance 6 feet by 5 feet. This group was well arranged with bright flowering and good quality foliage plants. Second prize was awarded to Mr. A. Higgins, Cottage Homes, Hornchurch.

A decorated fireplace was an interesting class, by far the best display, winning first prize for Mr. Richardson, who had Hydrangeas, Acalypha Sanderii, Begonias, and a pleasing assortment of foliage plants charmingly disposed; Mr. Higgins was second, and Mr. Philbrick a good third.

CUT FLOWERS.

Five entries for twenty-four cut Roses, distinct, made a brave display, a good lot securing first prize for Mr. G. H. Baxter, Hutton Park, Brentwood; Miss Pemberton, Havering, was second with a good lot of blooms; Mr. P. Perry, White Horse, South Weald, was third.

Mr. G. H. Baxter was the only exhibitor of twelve Tea Roses, distinct, and was awarded first prize.

The three exhibits in the class for twelve bunches of Sweet Peas made a charming display, Mr. Baxter again leading; Mr. Higgins was placed second with blooms less meritorious.

Twelve bunches of cut flowers found Mr. Richardson again leading with a fair lot of flowers of a varied character; and Mr. Chaffe was second.

FRUIT.

For the season fruit was well shown. For a collection of four distinct varieties, Mr. R. Farrance, Chadwell Heath, staged a very handsome lot, Gros Mission Peach, black Hamburg Grapes, Steel's Victoria Raspberries (very good), and Latest of All Strawberries placed this exhibitor in the leading position; Mr. W. Green, Harold Wood, was placed second.

Mr. Farrance led in the class for three bunches black Grapes, and Mr. Chaffe was placed second. With a dish of crimson Galande Peach, Mr. Farrance and Mr. Green with a good and ripe Melon, secured first prize in their respective classes. In the class for three dishes of Strawberries, distinct, Mr. W. Green staged a phenomenal trio. They were indeed fine, Royal Sovereign, Dr. Hogg, and Latest of All being seen at their best.

For a single dish of Strawberries Mr. Farrance led with a grand basket of Latest of All. Mr. Green being second with Dr. Hogg, and Mr. Richardson was third. Mr. Farrance won first prize for a dish of Gooseberries, showing Leveller; Mr. A. C. Philbrick being second; and Mr. Chaffe third. The last-named led with a nice and well-finished dish of Tomatoes; Mr. Farrance second, and Mr. Higgins third.

Vegetables were fairly well staged, particularly so in the amateurs' and cottagers' tent. The display as a whole was very encouraging to the executive, and with such a long experience it is hoped this society will have a useful future.

Table decorations were beautifully arranged by Mrs. W. Green, Harold Wood, who also was placed first in the

classes for a bouquet and button-holes. Mr. Leonard Brown, Brentwood, had a small though very charming exhibit of Sweet Peas in fine condition, and an interesting collection of English Irises set up with considerable taste.

ULVERSTON ROSE SHOW.

ON Thursday, the 9th inst., delightful weather favoured this popular event, which has now become one of the most important shows in the North of England, and that chiefly owing to the labours of the committee and Messrs. G. Mackereth and G. W. Poole, the honorary secretaries. The gate money amounted to over £130. From the many shows held last week one might naturally expect a decrease in the open classes, but this was more than compensated for by the wondrous display from Messrs. A. Dickson and Sons, Newtownards, County Down and Ledbury, who swept all before them, many new seedlings figuring prominently.

OPEN CLASSES.

The great class in the show was for seventy-two distinct, Messrs. A. Dickson and Sons staging flowers of grand substance and colour, some of the best blooms of which were Alice Lindell, Bessie Brown, Mrs. Conway Jones (a charming pink), Frau Karl Druschki, and Mrs. D. McKee (a bright yellow H.T.). They also had the first prize for sixteen trebles, a most superior lot.

Also in the class for thirty-six, distinct, was the same good quality shown. Marchioness of Downshire, Caroline Teatout, Duchess of Westminster (a superb pink), and several seedlings telling with good effect. Mr. H. V. Machin, Worsop, staged a smaller but effective stand, Bessie Brown, Victor Hugo, and Captain Hayward stood out conspicuously.

For six blooms each of dark, light, and Teas, Messrs. Dickson were again first. Frau Karl Druschki, Lady Derby, Mrs. W. J. Grant, Niphetos, and Rubens were splendid. Mr. H. V. Machin was a moderate second.

The class for twelve Teas or Noisettes was again a victory for Messrs. Dickson. The same firm won the National Rose Society's bronze medal for the best H.P., the best Rose, the best H.T., and the best Tea or Noisette, with Horace Vernet, Mildred Grant (2), and Bessie Brown, in each case being followed by Mr. Machin, who showed very well.

Messrs. Dickson's stand for twelve new Roses was greatly admired, and contained the following varieties: Gladys Harkness, Countess of Annesley (the best new seedling), Alice Grahame, Frau Karl Druschki, Mrs. D. McKee, Duchess of Portland, Lady Derby, Robert Scott, Mildred Grant, and a sterling seedling. They had the finest twelve blooms of one dark and one light variety in Tom Wood and Mrs. E. Mawley; Mr. Machin again following.

AMATEURS.

Classes were numerous, but space will only allow of the following being dealt with, viz., the gold challenge cup class, value 15 guineas and medal. Here Mr. F. W. Tattersall of Morecambe won for the second time with some good blooms. Mr. R. L. Garnett, Lancaster, was a close second, and the Rev. R. T. Langtree, Grange, third. The latter exhibitor had a beautiful lot in eighteen distinct. The prizes in the remaining classes were evenly distributed among Messrs. Machin, Midgley, Tattersall, and Garnett.

The medal for the best dark Rose went to Mr. Machin for Gustave Piganeau; for the best Tea to Mr. H. E. Johnson for Innocente Pirola, and for the best H.T. to Mr. Garnett for Mildred Grant.

GROWERS OF LESS THAN 300 PLANTS.

The Ulverston Council trophy and silver medal was won by Mr. F. J. Harrison, Ulverston, Messrs. Postlethwaite and H. E. Johnson taking many others. The Myles Woodburne challenge trophy, for the best bloom, was awarded to the latter gentleman with a fine Innocente Pirola.

SWEET PEAS.

These were magnificent. The J. Towers Settle challenge trophy, value 20 guineas, also the first prize in the class for twelve, were handsomely won by Mr. M. Firth, Leicester. A 10 guinea cup for local growers, given by the same gentleman, was taken by Dr. Jackson. The Irish-grown flowers from Messrs. Alex. Dickson were noticeable for their grand colour. Messrs. Garnett and Midgley also showed well.

Certificates of merit were given to Messrs. Jones and Sons, Shrewsbury; Mr. R. Bolton, Carnforth, for Sweet Peas; Mr. Mawson, Windermere, for herbaceous plants; and Mr. Mackereth, for shower bouquets.

WOODBIDGE FLOWER SHOW.

So strong a hold has Woodbridge Show secured in East Anglia generally that it has been for long, and is so still, a name to conjure with. A casual visitor seeing this show for the first time has not far to go on entering the town before he sees signs of and feels the influence which has secured for this show the success it boasts of, as being the chief, the oldest, and the most popular show and gala in East Anglia. The enthusiasm engendered by the show is apparent everywhere. It is in the atmosphere; everybody is smitten with it. We never saw a country town so bedecked with flags and banners and bunting before. Every house, like its occupant, was made to wear a smiling face, for that day at least. All associated with the show, now established fifty-two years, are deserving of the highest praise, from the president (Lord Rendlesham), Major and Mrs. Howey, in whose beautifully wooded park it was held, the committee, and last but not least, the hon. secretary, Mr. John Andrews, who for so many years has been tireless in his efforts to minister to the success of the show, and to whom the exhibitors and judges are especially indebted for boundless hospitality at his private residence.

The show was held in six tents on the 9th inst. Apart from the Rose tent the chief attractions of the show were centred in the large tent, and the exhibits in it were chiefly honorary and supplied by the trade. The following firms

were well represented by splendid exhibits of plants and flowers. Messrs. Wallace of Colchester, amongst other good things, had a splendid collection of Iris Kempferii.

Messrs. Daniel Brothers of Norwich had an extensive collection of hardy herbaceous flowers artistically arranged under the supervision of one of their managers, Mr. Clayton. Conspicuous amongst them was a grand new variety of Candytuft Grand Emperor, and Carnation Victoria Harbord, as well as a large collection of the best Sweet Peas. Messrs. Fred Smith and Co., seed growers of Woodbridge, had an imposing bank of hardy flowers in season. Mr. R. C. Notcutt, of Ipswich and Woodbridge, had a unique and beautiful exhibit of Roses arranged in glasses with abundant foliage and on long shoots, affording an effective object-lesson in the natural and best way of arranging the Rose. Messrs. King and Co., of Coggeshall, exhibited Sweet Peas in great variety and excellence. Messrs. Cutbush and Sons, of Highgate and Barnet, were represented by an interesting exhibit of flowering plants and cut flowers. From the president, Lord Rendlesham, came a beautiful collection of Carnations.

Among the cut flowers at this season of the year the Rose always takes precedence, and here it had a largesse devoted to itself, and for quality of flowers and extent of exhibits it was one of the best of the year so far.

Fruit was well represented. The Grapes throughout showing good quality, as did other fruits also. We have not seen British Queen Strawberry so well exhibited for many years. It was the true variety, the flavour being quite distinct and very delicious. Plants in pots were the weakest feature of the exhibition, very few possessing any merits being shown. Vegetables, on the contrary, both in the open and the cottagers' classes, were well shown and in good numbers. We congratulate the society on the success of the show, and especially on the record attendance and cash taken at the gate.

Thirty-six distinct varieties, single trusses: First, Messrs. R. Harkness and Co., Hitchin; second, Messrs. Prior and Son, Colchester; third, Messrs. B. R. Cant and Sons, Colchester.

Twenty-four blooms: First, Messrs. Prior and Son; second, Messrs. B. R. Cant and Sons; third, Messrs. R. Harkness and Co.

Twelve blooms, Teas or Noisettes: First, Messrs. F. Cant and Co., Colchester; second, Messrs. Prior and Son; third, Messrs. B. R. Cant and Sons.

Twenty-four distinct garden or decorative Roses, space 10 feet by 8 feet: First, Messrs. F. Cant and Co.; second, Messrs. B. R. Cant and Sons.

AMATEURS.

Twenty-four single trusses, twelve Teas or Noisettes allowed: First, Mr. O. G. Orpen, West Bergholt; second, Rev. A. Foster-Melliar, Sproughton; third, Mr. F. Curtis, West Bergholt.

Twelve single trusses: First, Mr. O. G. Orpen; second, Rev. A. Foster-Melliar; third, Mr. Reginald Steward, Packingham Hall, Norwich.

Six single trusses (Teas or Noisettes): First, Rev. A. Foster-Melliar; second, Mr. O. G. Orpen; third, Mr. R. Steward.

Six any Teas or Noisettes, single trusses: First, Mr. O. G. Orpen; second, Mr. F. Curtis; third, Mr. R. Steward.

Six Briar Roses (distinct varieties): No entry.

There were many classes provided for miscellaneous cut flowers arranged for effect, and these undoubtedly formed one of the best features of the show.

UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE usual monthly committee meeting of this society was held at the Caledonian Hotel, Adelphi Terrace, Strand, on Monday evening last. Mr. Thomas Winter presided. Four new members were elected, making sixty-one this year, the total membership now being 1,026. Five members were reported on the sick list. The sick list has been unusually heavy during the last half year.

NATIONAL SWEET PEA SOCIETY.

THE third exhibition of this society was held in the Prince's Hall, Earl's Court, on Wednesday and Thursday last. The quality of the blooms, on the whole, was excellent, but it is a pity that the surroundings were not more attractive. The yellow-painted sides of the building would have been much improved by a partial draping, and the exhibits, as a whole, were very flat. These are, however, minor points, to which the committee are fully alive. The exhibition was a very pretty one, and Mr. Horace J. Wright (the hon. secretary) has worked hard for its success.

OPEN CLASSES.

Special classification class. Collection of nineteen varieties. This class is intended to illustrate the colour distinctions in the society's classification. First prize, Mr. C. W. Breadmore, 120, High Street, Winchester, with a really distinct collection. Duke of Westminster (purple), Hon. Mrs. E. Kenyon (very pale yellow), Coccinea (red), Jeannie Gordon (cream and rose), and Lady Grief Hamilton (lavender) were the most striking; second, Mark Firth, Esq., Wistow Hall, Leicester (gardener, Mr. F. J. Clark), America (splashed red and white), Lottie Eckford (pale blue-violet), Dorothy Tennant (rich purple), Mars (crimson), Captain of the Blues (rich blue-purple) were excellent; in fact, the colours were remarkably good. A. G. Haymah, Esq. (gardener, Mr. Ackland), Hapfold House, Froume, was third, with good flowers also.

Thirty-six bunches: First, Mr. Mark Firth, Wistow Hall, Leicester (gardener, Mr. J. Clark), with bright distinct flowers. Mr. Leonard Brown, Dafodil Nursery, Brentwood, was second; and Mr. Breadmore, Winchester, third. The first prize lot was arranged by far the best.

Twelve bunches: First, Messrs. Jones and Sons, Shrewsbury, with excellent flowers; second, Mr. Breadmore, Winchester, with crowded vases; third, Messrs. E. W. King and Co., Coggeshall.

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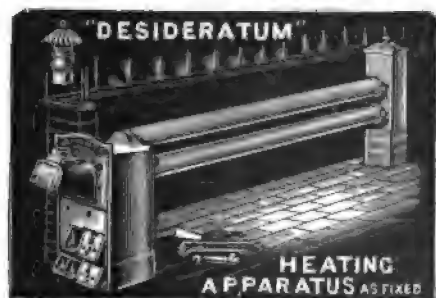
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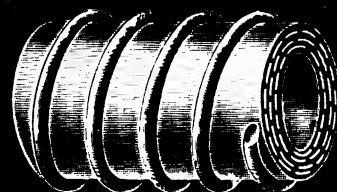
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TRADE EXCLUDED.

Thirty-six bunches: First, Mr. A. G. Hayman (gardener, Mr. Ackland), Hapfold House, Frome, with a really excellent display; a good second Mr. G. H. Baxter, Hutton Park, Brentwood (gardener, Mr. H. Holloway); third, Mr. Michels, Kingston.

Twenty-four bunches: First, Mr. A. F. Wootton, College Road, Epsom, with fresh and bright blooms; second, Mr. H. T. Michels, Farleigh House, Kingston (gardener, Mr. Hughes); third, Mr. R. Bathurst, Iron Acton, Gloucester.

Twelve bunches, distinct: First, Mr. Hugh Aldersey, Aldersey Hall, Chester, the new King Edward VII. being the best; Mr. T. Lloyd Davies, Park House, Addlestone (gardener, Mr. George Crabbe) was a good second, Agnes Johnson (rose-buff) being a lovely flower; Mr. H. J. Meyer, The Grange, Harlow, was third; and Mr. Mark Firth fourth. There were eleven exhibits in this class.

Nine bunches: First, Mr. Hugh Aldersey, Aldersey Hall, Chester, with pretty, well set up flowers; second, Mr. A. Stear, Royaton Park, Pinner; third, Miss Beekford, Ham Common (gardener, Mr. J. Watson).

Six bunches: First, Mrs. F. Brewer, Suffield House, Richmond, with Gorgeous and Lottie Hutchins as the best of a pretty lot; second, Mr. S. F. Jackson, Danehurst, Epsom; third, Miss Beekford.

OPEN.

Two bunches (white): First, Mr. C. W. Breadmore, Winchester, with excellent Sadie Burpee and Dorothy Eckford; second, Mr. Hugh Aldersey; third, Mr. R. Bathurst, Dean Lodge, Iron Acton, Gloucester.

Two bunches (crimson): First, Mr. Breadmore with Salopian and Mars; second, Miss Beekford, Ham Common (gardener, Mr. J. Watson); third, Mrs. F. Brewer, Suffield House, Richmond.

Two bunches (yellow): First, Mr. Breadmore, with Hon. Mrs. Kenyon and Hon. Mary Ormsby Gore; second, Mr. Hugh Aldersey; third, Mrs. F. Brewer, Richmond.

Two bunches (pink): First, Mrs. F. Brewer, Suffield House, Richmond, with Lovely and Prima Donna; second, Mr. J. Lloyd Davies, Addlestone; third, Mr. M. Y. Green, Eynaford.

Two bunches (rose and carmine): First, Mr. Breadmore, with Lord Rosebery and Prince of Wales; second, Mr. R. Bathurst; third, Mrs. F. Brewer.

Two bunches (mauve): First, Mrs. F. Brewer, Admiration and Dorothy Tennant were the varieties; second, Mr. Breadmore.

Two bunches (blue): First, Mr. Breadmore, with Countess Cadogan and Navy Blue; second, Mrs. Brewer; third, Mrs. A. Tigwell.

Two bunches (orange shades): First, Mr. Breadmore, with Miss Willmot and Lady Mary Currie; second, Mr. Hugh Aldersey; third, Mr. R. Bathurst.

Two bunches (blush): First, Mr. Breadmore, with Modesty and Duchess of Sutherland; second, Mr. H. T. Michels, Kingston.

Two bunches (Picotee edged): First, Mr. Hugh Aldersey, with Maid of Honour and Golden Gate; second, Mr. Breadmore.

Two bunches (striped and flaked red and rose): First, Mr. Breadmore, with Galety and America; second, Mrs. Brewer; third, Mr. H. T. Michels, Kingston.

Two bunches (striped and flaked purple and blue): First, Mr. Breadmore, with Grey Mar and Princess of Wales; second, Mr. H. T. Michels.

Two bunches (bicolor): First, Mr. Breadmore, with Triumph and Prince Edward of York; second, Mrs. F. Brewer; third, Mr. Hugh Aldersey.

Two bunches (violet and purple): First, Mr. Breadmore, with Duke of Westminster and Duke of Clarence; second, Mr. Hugh Aldersey; third, Mr. H. T. Michels.

Two bunches (maroon and bronze): First, Mr. Breadmore, with Black Knight and Boreston; second, Mrs. Brewer; third, Miss Beekford.

Two bunches (lavender): First, Mr. Breadmore, with Lady Grisel Hamilton and Lady Nina Balfour; second, Mr. Aldersey; third, Mr. H. T. Michels.

Two bunches (fancy): First, Mr. Breadmore with Lottie Hutchings and Gracie Greenwood; second, Mr. F. Lloyd Davies; third, Mr. Michels.

Two bunches (magenta): First, Mr. Michels with Captivation and George Gordon.

Two bunches (corise): First, Mr. Breadmore with Coccinea; second, Mr. T. Lloyd Davies; third, Mr. Michels.

FLORAL DECORATIONS WITH SWEET PEAS.

Table decoration (trade excluded): First, Mrs. Rapley, St. John's, Withdean, near Brighton, with pink and red Sweet Peas, Maidenhair Fern, &c.; second, the Right Hon. Earl Spencer, K.G., Althorp Park, Northampton (gardener, Mr. Silas Cole), with splendid blooms of a pink variety; third, Miss M. M. West, Rydal Grange Road, Sutton.

In the open class for table decoration, Miss Cole, The Vineyard, Feltham, was first, using effectively the Rural Table Decorations; second, Messrs. Jones and Sons, Shrewsbury, with red and pale yellow varieties; third, Miss Dorothy M. Oliver, 97, Tollington Park, N.

Messrs. Jones and Sons, Shrewsbury, were first for a bouquet of Sweet Peas, and second for a wreath or cross. Miss C. J. Cole, Feltham, was first in the latter class, also for three buttonholes, an epergé, and basket of Sweet Peas.

NEW SWEET PEAS.

The best of the new varieties were:—
Scarlet Gem.—A beautiful soft crimson-red, very distinct. From Mr. Eckford.

Florence Molyneux.—White, flaked with pale rosy purple. Very dainty and attractive. (Dobbie and Co.)

Mrs. H. K. Barnes.—Buff-white. (Dobbie and Co.)

Agnes Johnson.—Buff-pink. (Dobbie and Co.)

Mrs. W. P. Wright.—Rich, rather crude purple. (Dobbie.)

Gladys Unwin.—A pretty, rich pink flower, with wavy edges. From Mr. W. J. Unwin, Histon, Cambridge.

Bolton's Pink.—Rich, deep rose-pink. A good colour. From Mr. Robert Bolton, Warton, Carnforth.

Margaret.—White. A flower of good form and substance. From Mr. E. Molyneux, Bishop's Waltham.

Miss Ettie Ingman.—Rich pink.

Mr. John Ingman.—Rose-scarlet, very bright. From Mr. S. Cole, The Gardens, Althorp Park.

Lathyrus latifolius grandiflorus alba was well shown by Hobbies Limited, Dereham.

Mr. J. Smith, 145, Disraeli Road, Putney, showed several dark purple varieties. The certificates were not awarded when our representative left.

NON-COMPETITIVE.

Mr. Henry Eckford, Wem, showed a collection of Sweet Peas that comprised some very distinct varieties. *Scarlet Gem*, a striking flower, more crimson than scarlet, was the best. Silver-gilt medal.

Messrs. H. Cannell and Sons, Swanley, Kent, showed Sweet Peas in quantity. The Cupid varieties were particularly good, and there were also bold vasefuls of the better known sorts. *America*, *Lottie Eckford*, *Prince of Wales*, and *Mauve Queen* are all new and distinct Cupid varieties. Gold medal.

Mr. E. Sydenham, Tenby Street Birmingham, and Mr. J. Williams, Oxford Road, Ealing, showed Rural Table Decorations prettily arranged with Sweet Peas and greenery. Silver-gilt medal.

Messrs. E. W. King and Co., Coggeshall, Essex, exhibited bunches of the Sweet Pea. Silver medal.

Messrs. Jones and Sons, Shrewsbury, arranged an extensive display of Sweet Peas in many good varieties. The pinks and salmon-pinks were very attractive. Large silver medal.

Hobbies, Limited, Dereham, had a splendid display of Roses, Carnations, and Sweet Peas. The Roses, effectively arranged in bowls and vases, with arches of *Crimson Rambler* behind, filled one end of the group. Carnations in some lovely varieties occupied the centre, and Sweet Peas filled the remaining space. Among the new Sweet Peas were *Golden Rose*, cream and rose; *Mrs. W. Wright*, bright purple; *King Edward*, crimson; and *Dainty*, bluish. Large gold medal.

Messrs. Dobbie and Co., Rothsay, N.B., had a delightful lot of Sweet Peas, all the varieties shown being new ones. *Florence Molyneux* (white and rose), *American Queen* (crimson rose), *Lord Rosebery* (rich deep rose), *Gracie Greenwood* (salmon pink), *Dorothy Eckford* (pure white), *Jessie Cuthbertson* (cream, flaked with crimson), and others were well represented. Silver-gilt medal.

Mr. Charles W. Breadmore, Winchester, arranged an extensive exhibit of Sweet Peas which would have been more attractive had there been less greenery used. The flowers were of good size and the leading sorts were shown as well as some new varieties. Gold medal.

Proposed International Exhibition, Manchester, 1905.

At a meeting recently held in this city, it was unanimously resolved that it is desirable to hold an International Exhibition in Manchester in 1905, and a committee was appointed to take such steps as they consider necessary to ascertain the views of those likely to be interested in such a project.

Ealing Flower Show.—Years ago specimen plants used to be well shown at the exhibitions of this society, which held its thirty-ninth annual display on July 8. The ever-encroaching builder and the consequent destruction of the smaller estates, account largely for their non-appearance nowadays. The writer's memory is carried back to a certain grand show held under the auspices of this society some thirty-five years ago in Ealing Park. The mention of this once-famous place recalls that, at one time, it was in the possession of the late Mrs. Lawrence, mother of the present well-known and esteemed president of the Royal Horticultural Society, Sir Trevor Lawrence, Bart. In 1868 Ealing Park was tenanted by H. S. Budgett, Esq., Mr. Cole the then gardener showed some magnificent plants, and the celebrated old firm of Messrs. John and Charles Lee—then in its prime—also contributed largely. The society is not supported at all as it should be by the residents. But to refer—very briefly—to the show under notice, which was held in Walpole Park. Visitors to these annual displays always look—and never look in vain—for the beautiful non-competitive contributions from Gunnersbury Park and Gunnersbury House. On this occasion Mr. George Reynolds sent from the former place a very charming group, while Mr. James Hudson contributed from Gunnersbury House beautiful new hardy Water Lilies. Likewise, not for competition, was a lovely group of Maples and Lilies from Messrs. W. Fromow and Sons, Chiswick. Turning to a few only of the strictly competitive classes, cut Roses made a good display. For forty-eight blooms Messrs. G. and W. Burch, Peterborough, secured first honours; Mr. Charles Turner, Slough, secured second place. The dinner-table decorations were very attractive. Mrs. A. W. Perkin gained first prize with a design in tricolor in honour of the French President's visit—an apt

and much admired act of floral patriotism. Mrs. H. B. Smith's beautiful bouquets of Orchids, &c.—not for competition—were a very attractive feature. A much-merited word of praise must be accorded to the cottagers' fine vegetable display—the allotments at Ealing doing splendid work in this direction—truth to tell the vegetables shown by the cottagers were superior to those shown by professional gardeners. Certainly no produce from this latter section equalled the six first prize dishes from John Grant, the champion allotment holder at Ealing this year. The show was well managed by Mr. George Cannon, the hard-working secretary.—Quo.

ANSWERS TO CORRESPONDENTS.

Names of plants.—*J. Goodfellow*.—The small-leaved *Veronica* is *V. carnosula*. Of the remaining two the one with the longer racemes is *V. salicifolia* var., and the other is *V. speciosa* var.—*B. E. C. Chambers*.—The name of the Rose is *Clio*.—*R. M. G., Portmadoc*.—Unfortunately, the plants were very much shrivelled, but apparently *Neillia Torreyi*. If a large shrub it is *Neillia opulifolia*. Some indications of the character of the plant are a great help.

Romneya Coulteri diseased (BRECHLEY).—Your *Romneya* appears to be infested with a fungus, probably mildew. You might try dusting it over with flowers of sulphur. If this does not answer and the plant gets worse it would be advisable to burn it to save the others from becoming infested.

Rose leaves infested (SUBSCRIBER).—Your Rose leaves are infested by the grubs of one of the saw-flies (*Blennocampa pusilla*), which feed on the undersides of the leaves, causing them to curl up at the edges, and eventually to roll up as you find them. No insecticide can be applied to the grubs, as they are safely sheltered by the leaf, and it would not be worth while to try and catch the flies before they lay their eggs. The best thing to do is to pick off the leaves as soon as they show any signs of curling and burn them.—G. S. S.

* Several "Answers to Correspondents" are unavoidably held over until next week.

ERRATUM.—A slip occurred in "Notes from Worcester-shire" last week. For *Cydonia Sagenti* please read *Sargenti*.

* The Yearly Subscription to THE GARDEN is: Inland, 15s.; Foreign, 17s. 6d.

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HOW ON

THE GARDEN

No. 1653.—VOL. LXIV.]

[JULY 25, 1903.]

THE INFLUENCE OF GARDENING ON HEALTH.

WE hear much in these days of cures for every mortal ill—the open air cure, the light cure, the Grape cure, and countless others. It is strange that no healer of body and mind should have before now suggested the gardening cure. True, gardening is made part of the daily routine in manic asylums, workhouses, and reformatories, where the occupation is supposed to produce a salutary effect on the unfortunate inmates; but as far as we know, for sane and orderly folk, gardening has never been raised to the dignity of a scientific cure. Yet how many are which are disguised under finer names may be gathered into the one focus of gardening! Open air, Heaven's own light of sunshine, the fruits of the earth, exercise of limb and muscle—all these are close at hand at the service, without money and without rice, of many a one who passes them by without so much as a thought. Alas! that there should be toilers without number in all our large towns to whom such blessings are virtually denied.

But, after all, as the old adage says, prevention is better than cure, and there is no question that the man who in leisure moments digs or hoes his bit of garden ground—who wages war against the ever-present weed or light—who buds his own Roses or in one way or another enjoys the product of his own skill, be he gentle or simple, will be far more likely to keep disease at bay and to be healthier and happier than his neighbour who cares for none of these things.

The reason is not far to seek. Gardening not only strengthens the physical powers. It is an engrossing occupation which, without overtaxing it, diverts and soothes the mind, while in its never-ending phases there is no monotony. If we tire of one aspect of it, we have it to turn to another to find rest and variety in an entirely different branch of its many ramifications. Each day—nay, one might almost say, each hour—brings its own change, and however much the gardener may plod, he need never be mind-weary. Infinite diversity is always within reach, and every day and every recurring season brings its own refreshment and rich reward. What else, may we ask, yields such large returns—such manifold interest on work or outlay?

To possess a garden is one thing, to be a

gardener is another and quite distinct matter. We venture to think, however, that more than one deep truth lies hid in the old story of the Garden of Eden. Is it not possible that we may find there, if we will, not Adam alone, nor even Humanity in him prefigured, but the individual man and woman placed by Eternal decree in the Garden of the World to dress it and to keep it. We may catch the echo of the Everlasting fiat that in all future time and through all the generations to come, each in his or her own order should work in one degree or another for the well-being, not of themselves alone, but of the race. Surely we may take it as a foreshadowing of the healthful labour joining hand in hand with gladness and plenty, which was fore-ordained to be the common lot. Certain it is that there is scarcely a child of either sex who has not the intuitive desire and love of "making a garden." Yet how seldom are children helped and encouraged as they should be by suitable training to find the pleasure these natural promptings lead them to expect. Rather than leaving them entirely to their own devices in these matters, how much better that limbs and brain alike should be developed while real—not make-believe—work goes on merrily in the children's quarters. Thus the gardening instinct would be fostered in early youth, and a good foundation laid for the rational use of it when they shall be children no longer, and need wholesome and restful relaxation from the storm and stress of after days. It is well to remember that the love and knowledge of gardening cannot be picked up like pebbles any day at will as we wander idly along the shore of life. The natural intuition once shrivelled up and withered may never again be galvanised into existence.

Ideal gardening of necessity is in the pure air of the open country, but we may see many an evidence of the craving for it in the window box of the bustling town—the dusty Ferns and hanging pot of Creeping Jenny in the London area—or the roof garden amongst the chimney pots of the City warehouse. And who shall say what healthful influence may not hover about the poor Geranium trying to grow in the cracked teapot of some sad-eyed, toiling seamstress of the East End slum?

We cannot all be practical gardeners, yet it would be well for this, our mighty empire of Great Britain and Britain beyond the seas, if a vastly greater proportion of us were proud to claim the title. It is not too much to say that in every home,

whether in town or country, there should be at least one inmate, if not more, to take a lively interest in the garden, and, where that is impossible, at any rate in the garden produce department. Even where no part can be taken in open air work, every household is happier where there is one who will undertake daily to rearrange the flowers and to control the proper use of fruit and vegetables in their season.

For whether gardening be looked at from the point of view of a fine art or of a practical science of daily life, it must be reckoned with, and either furthered to the great and lasting benefit of every member of the household or neglected to their serious detriment.

Within the last half century a radical and happy change for the better has come over our English School of Cookery. We have wisely taken a leaf out of our neighbour's book, and have learnt to diversify the solid meat dinners and suppers of our forefathers with many additions of vegetables and fruits, formerly unattainable, at any rate by the million. There are those, nowadays, who advocate a strictly vegetable diet, but without going to any such extremes we may safely say that an abundant daily supply of fresh fruit and vegetables is one of the most important factors of our national health, not to say of our national moral well-being. It is a very significant fact that after the last Bank Holiday, the increased orderliness of the holiday makers, and the reduced number of the usual police-court cases were commented on in the daily papers as one result of the greater facilities afforded to the populations of our large cities of buying cheap and wholesome fruit. Certainly it is good to be able to buy garden supplies, but happier he who has the chance of raising his fruit and vegetables by his own skill or by the skill of others under his own eye. Are we not all ready to acknowledge with acclaim the superiority of the produce of our own plot of Mother Earth?

Even the citizen cooped up by bricks and mortar and restricted thoroughfares is by no means exempt from the universal law of gardening which we maintain to be the heritage of human kind. If he has neither time nor opportunity to work with his own hands, it is still incumbent on him to do all that in him lies to promote the intelligent and worthy labours of others, and there are multitudinous ways in which this may be done.

It goes without saying that the owner of many a fine estate finds his happiest and most salutary occupation in looking into and

planning with his workpeople the details of his flower gardens and pleasure grounds, his orchards, his vineries, his wood and coppices. "I've tried most things," said such an one, "but never until I took up gardening have I had such keen delight in any pursuit, and the best of it is it leaves no bitterness behind." If anyone doubts the truth of the statement, and especially if without any particular organic trouble he is feeling somewhat ailing and weary in mind and body from the over-taxing of his nerves in the hurry and rush of life, let him begin at any point to which his fancy leads him and give a fair trial to an hour or two daily of garden work. It need not be hard labour, but if the gardening cure is to do any good there must be real work and real interest, whether of hands or head, within the precincts of the garden itself. A hundred ways are open. A neglected bit of ground to be converted into a thing of beauty—a kitchen garden to be better ordered and made more productive—fruit trees to be pruned or grafted and renovated, or fruit to be thinned or gathered and stored—a greenhouse with capability of flower beauty yet not as satisfactory as it might be—a strain of some favourite plant to be improved by selection and hybridisation—a shrubbery altered from a series of dull green bushes to a delightful belt of flowering and fruiting trees. In fact, there is literally no end to the gardening avocations presented by every acre of ground. Persevere only and we venture confidently to predict that the priceless jewel of health will be found lying hidden somewhere beneath the surface of the peaceful enclosure.

EDITOR'S TABLE.

We invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London.

STREPTOCARPUS FLOWERS FROM ALDENHAM HOUSE.

Mr. Beckett sends from the Aldenham House gardens a delightful gathering of *Streptocarpus* flowers, conspicuous for their pure and varied colourings. The rose shades were particularly clear and distinct, and we hope Mr. Beckett will aim at keeping the colours quite pure, and not trouble about the size of the flowers. Our correspondent writes: "Most of the flowers I send you are our own seedlings. My ambition has been to produce new colours and long flower-stems. I believe the *Streptocarpus* when its culture is better known will have a great future, as well-grown plants continue to bloom practically all the summer." The strain at Aldenham House is an excellent one for cutting. The stems are long, without any tendency to becoming overdrawn.

SEEDLING CARNATIONS.

Mr. Wythes sends from the Syon House gardens a superb gathering of seedling Carnations raised from seed supplied by Mr. Douglas, of Edenside, Great Bookham. The flowers were exceptionally varied in colour, large, and for the most part not split, and very sweetly scented. One, a white variety, was quite worth perpetuating. When Carnations so beautiful as this can be grown from seed, it is almost needless to trouble about named sorts.

LOGANBERRIES FROM A NORTH WALL.

Mr. Wythes also sends a few splendidly-grown Loganberries from a north wall. This is an excellent fruit, pleasantly acid in flavour, and very refreshing. Several notes and an illustration appeared in THE GARDEN of July 11 last.

LOTUS TETRAGONOLOBUS.

Mr. M. P. Forster, Fairfield, Warkworth, Northumberland, sends flowers of the interesting *Lotus Tetragonolobus* with the following note: "This is a very handsome rock plant here in deep soil and sun. *Eremurus himalaicus* and *E. robustus* have been very fine; *E. Bungei* is just opening."

ANCHUSA CAPENSIS.

Among the many interesting plants recently sent from Newry by Mr. Smith was this beautiful blue-



ANCHUSA CAPENSIS.

flowered biennial, a much reduced illustration of which we give. Its large blue flowers are very welcome in some rather shady corner, and give just the colour so many desire.

MULGEDIUM PLUMIERI.

Mr. Shillitoe, F.L.S., sends from Sydenham Hill, S.E., flowering-stems of this beautiful Mulgedium, with its tall stems and clearly coloured flowers. The following note accompanied this welcome flower for our table: "I forward you some flowering stalks of *Mulgedium Plumieri*. They are very fine this year, some being more than 8 feet high. I brought the seed many years ago from the Pyrenees. The clumps are now of large size, and numerous seedlings come up every year. The leaves are very long, deeply dentated, and varied in outline, it forms with the French grey-

coloured flowers a conspicuous and handsome object in the odd corners of the garden. It is quite hardy, and the leaves do not completely die down during even severe weather. I am surprised that one so seldom meets with it." We hope Mr. Shillitoe's note will draw attention to so little known a plant.

FLOWERS FROM A SCHOOL GARDEN.

Mr. Edward Peake, Rydal House, Earlsdon Road, Norwich, sends Sweet Peas and *Antirrhinum* from a school to which we have on more than one occasion directed the attention of our readers. Mr. Peake is accomplishing a sound horticultural work among the boys under his charge, and we know this from the many good things that come from the school. The flowers sent showed that the most intelligent culture had been brought to bear upon the plants.

SOME DELIGHTFUL EVERLASTING PEAS.

Mr. R. Dean sends some charming varieties of Everlasting Peas with these words: "Enclosed are a few Everlasting Peas from plants growing as bushes against Apple trees in my seed grounds at Hounslow, and therefore having no special cultivation. The white, if grown under glass, or if it had special culture, would be as fine as anything seen this season. The storms have somewhat damaged the blooms. I have two or three forms of *Delicata*; the one sent is the only one yet in bloom."

The flowers were remarkable for their abundance, neatness, and variety of colouring. Mr. Dean sent the handsome *L. grandiflorus* with its big purple flowers; *Delicata*, a lovely warm rose-purple shade, very bright; *Queen of the West*, a beautiful white, very free; and *Latifolius superbus*, intense purple-crimson.

KEW NOTES.

INTERESTING PLANTS IN FLOWER.

Temperate House.

CASSIA LÆVIGATA, *Desfontainia spinosa*, *Lagerstrœmia indica*, *Lonicera etrusca*, *Paecliflora capslaris*, *Pavetta caffra*, *Petrophila pulchella*, *Solanum glaucum*, and *Tibouchina heteromalla*.

Orchid Houses.

Arides suavisimum, *Angræcum eichlerianum*, *Bifrenaria atropurpurea*, *Bulbophyllum Deari*, *Calanthe japonica*, *Cattleya granulosa*, *Dendrobium Calceolaria*, *D. endrocharis*, *D. formosum* var. *giganteum*, *Epidendrum scriptum*, *Eulophia monophylla*, *Oncidium crispum*, *O. longipes*, *O. trulliferum*, *Polystachya rhadopera*, *Renanthera storisii*, *Rhynchostylis retusa*, and *Sarcanthus pallidus*.

T Range.

Adenocalymna nitidum, *Amasonia calycina*, *Anigoanthus flavida*, *Aphelandra chamissoniana*, *Aristolochia gigas* var. *Sturtevantii*, *Costus speciosus*, *Crossandra undulatifolia*, *Emilia amplexicaule*, *Eranthemum tuberculatum*, *Gesnera cardinalis*, *Isolomas* in variety, *Notouia trachycarpa*, *Physostelma Wallichii*, *Pinguicula caudata*, *Rondeletia strigosa*, *Tillandsia Lindenii*, and *Vernonia scorpioides*.

Greenhouse.

Begonia Corbeille de Feu, *Campanula Vidalii*, *Celosia cristata* var. *pyramidalis*, *Clerodendron fallax*, *Datura fastuosa*, *Eupatorium ianthinum*, *Francia appendiculata*, *Lantana Camara* var. *Lobelia tenuior*, *Rivina humilis* in fruit, *Schizanthus retusus*, *Statice sinuata*, and *Trachelium cœruleum* var. *album*.

Rock Garden.

Aconitum Lycoctonum, *Arnica longifolia*, *Boykinia aconitifolia*, *Campanula alliariifolia*, *C. Scheuchzeri*, *Dianthus viscidus*, *Epipactis palustris*, *Erigeron glaucum*, *Erythraea Massoni*, *Gentiana straminea*, *G. tibetica*, *Gypsophila libanotica*, *Meconopsis Wallichii*, *Enothera missouriensis*, *Platycodon grandiflorus* var. *Mariesii*, *Potentilla nepalensis*, *Prunella grandiflora*, *Sidalcea Listeri*, *S. malvæflora*, *S. spicata*, and *Zygadenus elegans*.

Arboretum.

Clematis crispa, *C. Hendersonii*, *C. integrifolia*, *C. intermedia*, *C. Pseudo-flammula*, *C. viticella* var., *Genista etnensis*, *G. aspalathoides*, *G. nigricans*, *Indigofera decora*, *Notospartium carmichaeliae*, *Spiraea japonica* and var., *S. Menziesii* and var., *S. Douglasii*, and many other things.

Herbaceous Borders and Ground.

Aconitum stoerkianum, *Astilbe chinensis* var. *japonica*, *Cimicifuga americana*, *C. racemosa*, *Delphinium* (numerous species), *Eucharidium concinnum*, *Gilia coronopifolia*, *Lavatera cachemiriana*, *L. thuringiaca*, *L. trimestris*, *Malcolmia littorea*, *Malope trifida*, *Nepeta* (various species), *Nymphæas* in variety, *Pentstemon barbatus*, *P. Hartwegii*, *P. heterophyllus*, *P. perfoliatus*, *P. Richardsonii*, *P. spectabilis*, *P. Wrightii*, *Salvia sclarea*, *S. virgata*, *S. viscosa*, *Sidalcea* (numerous species), *Silene echinata*, *Spiraea digitata*, *Thalictrum* (numerous species), *Verbascum* (numerous species), *Verbena Aubletia*, *Veronica* (numerous species), and very many other things.

Borders round Palm House.

Agapanthus umbellatus var. *Leichtlinii*, *A. u. var. mooreanus*, *Albica Nelsoni*, *Bravca geminiflora*, *Crinum Powellii*, *Opuntia camanchica*, *O. fragilis*, *O. mesacantha*, *O. polyacantha*, and *Rosecea purpurea*.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

- July 29.—Chesterfield Horticultural Show.
August 3.—Basingstoke, Newbury, Sheffield, Grantham, Lichfield, and Headington Horticultural Shows.
August 4.—Royal Horticultural Society's Committee meet; Abbey Park Flower Show, Leicester (two days).
August 5.—Dudley Horticultural Show.
August 6.—Midland Carnation and Picotee Show at Birmingham (two days).

The Dean of Rochester has expressed his intention of being present at the gardeners' dinner to be held on Michaelmas Day next. We are quite sure Dr. Hole will have a great reception.

The illness of Mr. W. Marshall.—At a meeting of the fruit committee, held at Chiswick on the 14th inst., Mr. George Bunyard in the chair, a vote of sympathy was passed by those present with Mr. Marshall in his long illness, and a sincere hope expressed that he would soon be restored to his usual good health. *Ex officio* (as a member of the council) Mr. Marshall has occasionally presided at the meetings of the fruit committee at Chiswick.

Thornton Heath Rose Show.—At this excellent show on Wednesday, the 15th inst., it was interesting to notice that Mr. H. E. Molyneux, who has quite a small garden at Balham, secured many prizes. He gained two firsts and one second prize, and the latter box for Teas contained a superb flower of Maman Cochet, which gained the silver medal for the best bloom in the exhibition. Mr. Molyneux is one of our most valued contributors. He knows not only how to grow Roses, but how to show them. The show, we are pleased to know, was a great financial success.

Market gardeners and their rent. In view of the losses sustained by reason of the late frosts, which have practically ruined their fruit crops, Mr. Leopold de Rothschild has remitted to the market gardener tenants upon the Gunnersbury estate 15 per cent. of the rent due for the past six months.

The new Curator of the Birmingham Botanic Gardens.—We are pleased to hear that Mr. T. Humphreys, assistant-superintendent of the Royal Horticultural Society's Gardens at Chiswick, has been appointed Curator of the Birmingham Botanic Gardens, in place of Mr. Latham, who is retiring after many years of devoted service. It is interesting to know that Mr. Humphreys first began his career with Messrs. J. Dickson and Sons, of the Newton Nurseries,

Chester, in 1882, and stayed with that firm for five years. From there he went to Kew, and was at one time sub-foreman in the Arboretum, then to the Royal Horticultural Society's Gardens at Chiswick. The committee of the Birmingham Botanic Gardens have made a wise selection. Though of a retiring disposition, Mr. Humphreys has a quiet determination that makes for good work, and his courtesy and kindness have won him a host of friends. For many years he has acted as secretary to the floral committee, and at the last meeting Mr. May, the chairman, acting in the absence of Mr. Marshall, referred in terms of high praise to Mr. Humphreys' quiet and successful endeavours, both at Chiswick and upon the committees, to carry out his official duties. A small sub-committee has been appointed to give practical proof of the committee's recognition of their secretary's work, and in his fresh sphere of labour the new Curator has our hearty goodwill.

Fruit and Flowers at the Woodbridge Show.—This, as far as I know, is the only show where a special class is devoted to ornamental stands of flowers and fruit, arranged for effect. I think the idea is an excellent one. It is not every gardener who can compete in the large class for decorated tables of fruit, and few shows, comparatively speaking, can afford the prizes necessary. In these decorated stands we have the idea carried out, and in the classes for then it is possible for a great number of small growers to compete. It was certainly one of the prettiest and most interesting classes in the show, and the stands exhibited were beautifully and artistically arranged, and, judging by the crowds of people surrounding them, were as much admired as any feature of the show.—T. E.

National Chrysanthemum Society's outing.—On Monday, the 13th inst., the members of the National Chrysanthemum Society had their annual outing, the place visited this year being Park Place, Henley-on-Thames, the residence of Mrs. Noble. The party took train to Reading, and from there went by river to Henley. The water trip was much enjoyed, as also was the visit to the beautiful and well-kept gardens of Park Place.

The Royal Horticultural Society's Committees' cricket match.—The members of these staid judicial bodies again, as last year, have agreed to play cricket, the place this time being Holland Park, Kensington, the day Saturday, August 8, and the time 11 a.m., with luncheon at 1 p.m. The delightful day at Gunnersbury Park, so heartily enjoyed last year, will not be readily forgotten. Mr. W. Howe will captain the floral committee side, and Mr. G. Woodward the fruit members. All members of these two committees are invited to play, and the members of other committees, with their friends, are invited to attend and see it. The occasion should be one of pleasant sociability. Generally the committees meet only to work. On this one occasion they may be excused if they are a little playful.

A new Strawberry (Givon's Late Prolific).—At a meeting of the fruit committee of the Royal Horticultural Society at Chiswick, on July 14, a very fine basket of a late Strawberry was exhibited by Messrs. Bunyard, Maidstone, and if the variety had not previously received an award, it would certainly have had one now, as it proved to be a delicious fruit and was much admired. Givon's Late Prolific is a dark red firm fruit of roundish oval shape, but I noticed that its shape varies, a few being of wedge form. The flavour is excellent—neither too sweet nor too acid. I think a briskish flavour with late Strawberries makes the fruit more palatable, but there is one objection to this useful addition to the late kinds, and that is it is not late enough. There is yet room for a really good late variety, as Strawberries of this class are very scarce. We find that the latest varieties grown on a north border are not as late as described; but on the other hand the raiser has given us an excellent fruit, which I intend to give ample scope in the position named. It will be most valuable to follow the mid-season varieties, and its firmness will make it valuable for

sending away. It will certainly be a great gain to Strawberry growers.—G. WYTHES.

Long-foot Cabbage.—According to the *Agricultural News* of the West Indies, a very hardy acclimatised variety of the common Cabbage is found occasionally in the West Indies, chiefly in negro provision grounds. It has bright green leaves without the glaucous bloom usually found on some Cabbages. It is said to thrive anywhere, and is evidently well suited to dry, arid conditions, where no other kind of Cabbage will grow. The negro name of "Long-foot" at once suggested that it was not unlikely to be closely related to the Cabbage grown in the Channel Islands and in the Canary Islands for the purpose of making walking sticks from its stems. This is evidently the case. The growth of the stem is promoted by constantly stripping off the lower leaves. Some specimens have been known to attain a height of 10 feet. The Long-foot Cabbage may, however, have other uses, and that is to supply green food for man and beast in times of scarcity. We, therefore, commend this hardy and apparently neglected vegetable to the attention of those living in remote and arid localities. It is easily propagated by cuttings.—J. R. JACKSON, *Claremont, Lympstone, South Devon.*

Rose Brailwick Fairy.—This is a new rambling Rose that is not yet in commerce, but is of the class that is wanted. In colour it is almost white, with the faintest shade of cream; the buds are small, elongated, and of perfect shape for buttonholes. It will also be in great demand for trade purposes. The plants I have seen at Brailwick, Colchester, are immense growers, with very rich brown foliage, which gives a striking effect to the flowers when in bloom. A very pleasing feature is its strong scent, reminiscent of Almonds when crushed. It will be suitable for pyramids, pergolas, arches, or would make an excellent hedge. A very good bunch was exhibited by the raisers, Messrs. Frank Cant and Co., at the Holland House show this year.—H. E. MOLYNEUX.

Flowers for Butterflies.—It surprises me to see several flowers mentioned for this purpose, and the one which I have always found eminently the best omitted. I refer to *Sedum spectabile*, which in August and September generally monopolises the attention of the butterflies in my garden in Cheshire. I have counted as many as twelve butterflies at a time on one head; they consisted of Red Admiral, Peacock, Comma, and Small Tortoiseshell.—C. WOLLEY DOD.

When I was a boy specially noticeable were the large and beautiful butterflies that used to frequent the breadths of large single Sunflowers grown in a Northern nursery for seed production. Perhaps these gorgeous insects have varied their tastes since those days, but certainly since single Dahlias came into culture so largely butterflies seem to have favoured them beyond all other flowers. I have seen some beautiful ones on single Hollyhocks, and most oddly of all on large double African Marigolds. There seems to be no doubt that large flowers of striking colours do attract these winged insects very much, but all the same they seek for the intoxicating, or rather satiating, secretion which these flowers possess in abundance. To secure visits from these charming creatures, but not to destroy them as vandals, it is well to have in a garden flowers that specially attract them.—D.

Pelargonium Paul Crampel.—This Pelargonium, referred to by Mr. Burrell on page 39, affords another illustration of the fact that a long time often elapses after a plant has been distributed before its merits are recognised, while, on the other hand, some bound at once into popularity. The variety Paul Crampel was distributed by M. Lemoine in 1892, so that it is, as far as soft-wooded subjects are concerned, quite an old plant, yet has only lately become generally grown. The same thing happened in the case of the double-flowered zonal variety F. V. Raspail, which, distributed by M. Lemoine in the spring of 1878, was for some years almost lost to cultivation, till it was taken in hand by some of our market growers, and for a long time held its own as the most popular double-flowered variety in cultivation, to yield only at last to its sport F. V. Raspail Improved.—T.

The influence of climate on fruits.

We are all familiar with the general fact that certain fruits are grown in certain regions, that we have tropical, sub-tropical, and temperate fruits, and even that the Peach belt and the Apple belt do not coincide. Probably most of us know, some, perhaps, by rather disappointing experience, that certain varieties of fruits are not so hardy as others. But have we ever considered at all carefully how a difference in climate may influence the form, quality, and other characteristics of any particular variety of a fruit? I imagine that very few of us have done so, and perhaps fewer still have had an opportunity to examine personally samples of the same variety of fruit from different countries, or different sections of the same country, and note the differences and peculiarities. The writer had several such opportunities the past season, having received several barrels and boxes of specimen Apples from different parts of Canada and the United States, and the modifications of varieties were most remarkable. Some sorts which are very well known to me as grown here in Nova Scotia were so changed as really to be scarcely recognisable by their general characteristics. When I came to study them more carefully, to note dots and other skin characters, there were usually some points which suggested our Nova Scotia Apples of some variety, but even then it was largely a guess, and I needed the label to verify my suspicion. The most conspicuous changes noted are that our Nova Scotia Apples are longer, more inclined to be ribbed, and of a deeper darker red than the same variety grown in Ontario or in Massachusetts. In the Northern Spy, for example, the Ontario Apple is quite oblate, and is very smooth and regular in outline, with the basin or blossom end very slightly corrugated, if at all. The Nova Scotia Spy, on the other hand, while occasionally flattened, is typically a long conical Apple, with a deeper basin and cavity, and both of these depressions rougher and more corrugated. Nova Scotia and Massachusetts Baldwins show the same differences to even a greater extent. The Massachusetts Apple is a very smooth fruit, rather oblate, with neither basin nor cavity corrugated to any extent; while our Nova Scotia Baldwins are proverbially rough in outline, are conical and approaching oblong in shape, and are always corrugated at the blossom end, and with the five points which mark the five ovaries always prominent. In colour, too, there is a marked difference; while the Massachusetts fruit is a handsome scarlet the Nova Scotia Baldwin is much darker, more of a crimson, or even brownish or bronze. In talking with my good friend Mr. R. W. Starr, who knows more about Apples than any other half-dozen men in Nova Scotia put together, I find that he had much interesting correspondence with the late Charles Downing of New York (America's greatest pomologist, to whom he often sent fruit) on this subject. Mr. Downing repeatedly expressed surprise at the much deeper colour of our Nova Scotia Apples, and the tendency of such sorts as Rhode Island Greening to have a blush on the cheek as grown here, while in his district they are practically green. But not only are the external characters of the fruit modified; the flavour and quality seem equally susceptible of change. Mr. Downing considered the Apples from Nova Scotia as of the highest flavour, and said that from only one other section, the Cumberland Mountains of

Tennessee, did he find their equal in quality. He attributed this difference largely to our cooler, more northern climate (the higher altitude of the Cumberland Mountains giving practically the same effect). President Schurman, of Cornell University, has expressed the same opinion, saying that there is a marked difference in the King of Tompkins as grown in New York and in Nova Scotia.—F. C. SEARS, *Director Nova Scotia School of Horticulture.*

Candle Trees.—Amongst the many peculiarities of vegetation the fact that candles grew on trees is one that has often been stated, but never corroborated to the satisfaction of those who would wish to cultivate such a plant for the sake of providing the homely and domestic candle. Yet a Candle Tree has been known to cultivation as a stove plant for a very long time. These Candle

of Apples, which is said to be communicated to some extent to the flesh of animals fed upon them, but which is entirely given off if the food of the animal is changed a few days before killing. The fruits of *P. edulis*, which are shorter and rougher, are, as the specific name indicates, edible, being eaten by the natives. While writing these notes, *THE GARDEN* for April 18 came to hand, and in it, on page 254, a paragraph on "A few notable Trees," the value of which would have been enhanced if the writer had given the scientific names of the trees. With regard to the South American Cow Tree, I may, perhaps, add a few words by way of illustrating the manner in which botanical facts are twisted, contorted, or enlarged upon by the unscientific Press. A few years ago when a visitation of diphtheria was traced to a certain milk supply, note appeared in one of the daily papers on the

very Cow Tree now under consideration, and a suggestion made that such plants should be cultivated in our gardens to supply the family milk by tapping the tree instead of milking the cow, a rather expensive experiment if our gardens had to be turned into heated glass houses to suit the requirements of a South American tree.—JOHN R. JACKSON.

Tigridias.—Few things in the summer garden are more gorgeous than the Tiger Flower (*Tigridia Pavonia*), of which there are several forms. I have several flowers out now, and though they remain for a day only, they appear in succession. I plant the bulbs in spring in a very warm southern corner in light soil. *Rosea* is a favourite variety.—J. Henley.

Stonehenge and the barbed-wire fence.—The secretary of the Commons and Footpaths Preservation Society writes: "The Wiltshire County Council has now definitely declined to protect the public rights prejudiced by the obstruction by means of a high barbed-wire fence of all the roads leading to Stonehenge. The council has suggested that the cost of an action involving such far-reaching principles as the preservation of the right of public access to Stonehenge should be borne by the public generally. The Commons and Footpaths Preservation Society has, therefore, been reluctantly forced to appeal for funds to enable the grievance of the public to be placed before a court of law. The society has determined to endeavour to raise a guaranteed sum of £2,000 to provide against every possible contingency, although this sum will probably not be needed, as the society is advised by several eminent legal experts that it can expect to establish the public rights. Already the members of the society have guaranteed £1,000 of the sum needed. The

action is not contemplated in any vindictive spirit against Sir E. Antrobus, the landowner, whose motives in the matter of the enclosures are fully recognised and appreciated by the society. But it is imperative that the claim that Stonehenge is not a place to which the public can enjoy a right of way should not be allowed to go by default, otherwise in the future it will be most difficult, if not impossible, to protect any path giving access to a view-point or to a place of historic interest. The question of the preservation of Stonehenge itself is a side issue, for the monument may be permanently safeguarded by the State by means of the Ancient Monuments Acts without enclosure, without expense to the landowner, and without depriving the owner of his legal interest in the stones."



THE TIGER FLOWER (*TIGRIDIA PAVONIA*).

Trees are natives of Mexico and Central America, and belong to the order Bignoniaceae; they are closely allied to the Calabash. Three species only are known, and the two most important are *Parmentiera cerifera* and *P. edulis*. The name of the genus is derived from a French writer *Parmentier*, and the first-named species refers to the waxy appearance of its long slender cylindrical fruits which hang in clusters like a bunch of candles. It is a native of Panama, where it is known as the *Palo de Velas*. The fruits are commonly from 2 feet to 3 feet long, and sometimes even 4 feet. Dr. Leemann writing of this tree says:—"A person entering the forests which are composed of this tree almost fancies himself in a chandler's shop, for from all the stems and older branches these fruits are suspended." When ripe they give off a small

Japanese Maples.—Among the numerous species and varieties of deciduous shrubs comparatively recently introduced into English gardens none is of greater beauty and interest than the Japanese Maples. Small colonies of them suitably planted are sure to claim attention from all plant lovers, whether owners of gardens or their friends. There is a refinement and delicacy of texture and colouring in their foliage that in my opinion no other hardy shrubs possess during the summer and autumn months. With us some planted about twelve years ago have proved quite hardy. One great advantage these Maples have is that in small gardens they do not outgrow their position so soon as many deciduous shrubs do. I am sending you a photograph of a very fine specimen of *Acer palmatum purpureum* I saw at Lathom House, Ormskirk, some time ago. It is the largest Japanese Maple I have yet seen. Mr. Ashton, the gardener to Lord Lathom, is naturally very pleased to draw the attention of garden lovers to its size and general beauty.

Garden vases.—I am reminded of this subject in consequence of recent rearrangement of some vases in the grounds here. So far as I can make out they have been in position over sixty years—at least, I have known them for more than half that period, and so far as ordinary wear is concerned they are as good to-day as when I first saw them. They are made of some mixture of Roman cement and hard sand, and at first sight would be taken as cut out of stone. They vary in size and shape, from large urn-shaped ones, standing on 4 feet high square bases made of the same material, to the ordinary vase about 3 feet high. I noticed the maker's name stamped at the bottom of one of them as Austin, New Road, London. I can find no trace of the firm now in the "Horticultural Directory," though I seem to remember that a firm named Austin and Seeley had a vase stand not far from King's Cross Station in 1862. Be that as it may, what I wish to emphasise is the excellence of the material for making outdoor garden vases. We find plants generally used for filling vases to grow much more freely in them than in marble vases, of which there is a number on the terrace here. I feel sure the same remark would apply in the case of those made of terracotta or cast-iron. For older gardens one great advantage these artificial stone ones have is that in time their outer surfaces get partly covered with the smaller lichens and other allied forms of lower vegetative growth. To my mind this adds much to their beauty and interest. With ordinary care there is no more risk of injury from chipping than in the case of terracotta ones. Unfortunately, the photographs I have are not suitable for reproduction.—H. J. CLAYTON, *Grimston, Tadcaster.*

Lettuces.—There is undoubtedly a wide difference between Lettuce stocks, not only in relation to hearting and to edible quality, but also to permanence. Some are of so fugitive a character that they bolt off to flower even before hearts are formed. Those are no good, and their existence rather indicates that the seed has been saved from bolters rather than from good hearting stocks. But stocks of that kind, whilst proving exceedingly exasperating, do the vendor much harm, as no grower cares to be so deceived twice. It is far wiser to purchase good stocks of enduring character at higher prices than to obtain cheap seeds that result in worthless products. Those who occasionally indulge in Lettuce trials soon find how wide is the difference between good and indifferent stocks. When at Clendon Park, Guildford, the other day I was much interested in the Lettuces I saw growing there. Mr. Blake keeps up a very constant supply, and as evidence of that he had of five diverse varieties no less than four different plantings, with a fifth just coming on. The varieties were all of Messrs. Sutton and Sons, and included their mammoth White Cos, a tall form, pale green in colour; Giant Cos, a green form of the Paris White, and a first-rate one to heart in firmly; Favourite, a curled Cabbage variety, pale in colour, but carrying big solid hearts, with few outer leaves; Giant Cabbage, a fine plain-leaved form that gives large hearts and stands well, also has the merit of

being exceptionally good when cooked as an ordinary Cabbage. Smallest yet for edible or salading purposes, the firmest, sweetest, and most crisp was Little Gem, a variety classed as a Cos, and if so it is certainly a very dwarf, compact one. Planted 10 inches apart on good ground, as is done at Clendon Park, it produces very firm solid heads, and is one of the nicest in cultivation. To have good Lettuces in hot weather seed should be sown thinly in well-watered drills on a north border, the plants being thinned down to 9 inches apart.—A. D.

Forcing plants by means of ether. At the last exhibition at Cours la Reine there was shown a little model of an apparatus for submitting to other fumes shrubs which were intended to be forced. M. Aymard of Montpellier, the founder of this process, has used it for two years with great success. He made a communication recently on the subject to the Horticultural Society of Hérault, from which we extract the following passages, bearing more particularly on the amount of ether to be employed: (1) At the rate of 175 grammes per cubic metre, and with forty to forty-four hours' etherification, efflorescence started at the end of sixteen days. Blossoming was full by November 21 or 22 to December. (2) Using 150 grammes per cubic metre, and with thirty to thirty-six hours' etherification, efflorescence started at the end of sixteen days. (3) With 100 grammes per cubic metre and twenty-four to thirty-six hours' treatment, efflorescence began at the end of fifteen days. These figures may require some explanation. It should be noted that all these experiments were made in the open air, and were subject to atmospheric variations. Thus it was quite possible that one or two etherifications made during mild weather might have succeeded better than others. Operations with 100 grammes of ether per cubic metre were made only twice, as a too clement winter renders the ether useless; but Nos. 1 and 2 have been repeated a number of times. It is pretty certain that with a colder climate the doses used must be stronger; at any rate the apparatus should be kept in a closed room where it could be heated in some way.

Destruction of the woodlouse.—The number of lauded preparations for the destruction of the woodlouse is pretty considerable; each orchardist possesses his own favourite remedy, more efficacious, doubtless, than all the others; nevertheless, the woodlouse continues to work havoc. A writer in *Le Journal d'Agriculture Pratique* mentions a process which has given very satisfactory results. In an orchard where he had a free hand to do anything to destroy this pest, M. Mangin had tried a large number of recipes; all of them yielded negative results. At last he hit upon a mixture, by means of which he has destroyed whole masses of woodlice. This mixture consists simply of a varnish composed of light gum-lake mixed with 5 to 10 per cent. of lysol. The "body" of this varnish, being constituted of alcohol, moistens and penetrates the parts which shelter certain species of woodlice. All the parts invaded by the pest are painted over with a brush or powdered, but this must be done only in very dry weather. The alcohol evaporates and the gum-lake "fixes" the woodlice, preventing them from escaping by flight from the toxic action of the lysol. At the end of two or three paintings the lice will be entirely destroyed, not only upon the branches, but also upon the green parts of the tree. The preparation of this product is very simple. A quantity of light-coloured varnish is procured, such as is in common use among cabinet-makers and polishers, and this is mixed with once or twice its volume of denatured alcohol and with 5 to 10 per cent. of lysol. A remedy so easily prepared, and which has been used with successful results in France, should be worth a trial here.—F. J. HARDY.

Humea elegans.—When grown successfully this is most effective, but it seems a little difficult to manage. I have always been able to grow the plants well enough, but have failed to flower them sometimes, and I do not feel sure if it has been because of late sowing, or if it is usual for a percentage to fail. On one occasion I raised

eleven seedlings, all of which grew into fine plants, and were potted on into 8-inch pots. Of these two plants failed entirely to flower, though they grew well. The others threw up grand panicles of inflorescence, attaining fully 8 feet high. Last year from a large batch of plants only a very few flowered. A few of the smallest plants were kept over, and this season I was asked to put the tops in as cuttings. I certainly thought it a most unlikely subject to root. However, every cutting rooted, and they have since flowered, but have not made such large plants as they usually do when grown on from seed.—A. HEMSLEY.

Rabbits barking trees.—A Fellow enquires how best to protect young trees from rabbits. The best way, no doubt, is to wire them round with small meshed wire at a distance of 6 inches or 8 inches from the stem, taking care to let the wire go down at least 6 inches below the surface to prevent the rabbits burrowing under, and having it high enough to keep them from leaping over. Save, however, with a few specimen trees, this is generally considered too expensive, and as a rule tar is used instead. But tar is not always satisfactory, as it sometimes itself kills the trees, particularly if applied after the rabbits have commenced to bark them. In any case Stockholm and not gas tar should be used, and a better plan than putting it on the young trees is to drive in a few stakes round the stem and smear them with the tar, as rabbits have a great dislike to their fur sticking to anything. We have found the following preparations very useful for the purpose: (1) Davidson's Composition, made by a Leith firm; (2) a teaspoonful of tincture of assafoetida in half a bucketful of liquid soil applied with a brush, perhaps twice during the winter; (3) a mixture of lime, water, and cow manure, pretty strong, is excellent; so is any strong-smelling grease.—*From the Royal Horticultural Society's Journal.*

Potato disease.—Early Potatoes purchased in the market have already shown a good deal of disease, although chiefly on the bud ends, which are, as a rule, the parts of the tubers least covered. That fact serves to show how important it is that in moulding up the plants the soil be made fairly thick, as in such case it acts as a protective medium. No doubt with disease sports already prevalent in the atmosphere the recent heavy rains did wash them into contact with the tubers and thus produce exactly similar action to what is seen when leaves or stems are affected. But full or complete moulding cannot be done when Potato rows are planted close together. To enable earthing to be well done, the rows should be fully 30 inches to 36 inches apart and a second moulding given after tubers have been formed. Close planting is not at all economical, not only are more seed tubers required, but it checks leaf development, and for the production of an abundance of sound, healthy, starchy tubers the leafage cannot well have too much light and air. It is always the lower and least exposed leaves that first fall a prey to the Potato fungus, and from these spores are bred in great abundance. No doubt the present heat will check spore action materially during the day; but because there is generally so much of moisture in the soil, considerable moist or humidity is generated during warm nights, and this air moisture accelerates spore growth with great rapidity. If the heat continues presently the humidity at night will be greatly lessened, and if on breadths the fungus has not appeared then it may not be seen for some time. Unfortunately in our climate heat waves are so often followed by thunderstorms, and these favour fungus development materially. It will be wise in any case to have at disposal plenty of copper and lime solution for spraying the plants early, and once or twice later at intervals of a couple of weeks to save them so far as possible should the disease be prevalent.—A. D.

Verbenas.—These old favourites certainly deserve more attention. Your note in THE GARDEN, page 21, reminds me of the time when they were used extensively for bedding. The most popular varieties were Defiance, scarlet, a very free spreading sort, the shoots rooting into the ground at every joint, the flowers, though small, were very

bright in colour and produced in great profusion; Snowflake, the white variety, was not quite so vigorous and required pegging down; Purple King, bright purple self, also was a little difficult to manage, being much subject to the black spot you refer to, but on account of its distinct colour was more in demand than either of the others. The time for growing collections of named varieties is undoubtedly past, but in my early experience keeping up a collection of these was rather an important matter, and very difficult it was to keep some sorts through the winter. Of the varieties you refer to Ellen Willmott is one of the finest we have. In going through Covent Garden Market a few weeks ago I was much struck with the bright effect produced by masses of this plant grown in pots; they were to be seen on several stands. This beautiful Verbena is evidently destined to become one of our most popular market plants. I also noted a very bright scarlet variety named King of Scarlets; this may be the same thing as Warley, at any rate it is a fine Verbena, but as we have so many good scarlet pot plants it may not become such a general favourite as the pink. Verbenas are easily raised from seed; by careful selection vigorous and free flowering varieties of distinct shades may be propagated from cuttings for a season or two, and a vigorous stock kept up by adding fresh seedlings.

Tropæolum Sunlight.—This beautiful yellow climbing variety, which came from America a few years ago, varies considerably when raised from seeds, but by careful selection a large percentage will come quite true. Some more resemble the dwarf varieties in habit, and flower very freely. The deep golden-yellow flowers have a pleasant perfume, a much more decided scent than I have found in any other variety. The Tropæolums are not generally recommended for cut bloom, but I find they are very useful. I recently cut some of the semi-dwarf shoots and flowers together, and after being in water a week the shoots had grown, and several blooms which were quite small buds when cut had developed.—A. HEMSLEY.

Weather and ripening Peaches.—It may be of interest to you and your readers to know the effect of the weather for the last five years on the ripening of Peaches out of doors on a south-west wall. Alexander and Waterloo were planted in 1891. I see no difference in the fruit, both are clingstones, medium size, and highly coloured. 1899, July 9, Waterloo was ripe; 1900, July 12, Waterloo and Alexander, fruit small, ripe and falling; 1901, July 10, Waterloo, ripe; 1902, July 15, gathered a dish of Alexander later than usual; 1903, July 13, gathered from both trees. One year, but I cannot find the note of it, Alexander was gathered on July 6. A good early Nectarine with me is Advance, heavy cropper, fruit medium size, plenty of fruit now, but the snails are attacking it.—J. A. PORCH, *Edgarley House, Glastonbury.*

THE ROSE GARDEN.

NOTES ON NEW DECORATIVE OR GARDEN ROSES.

I HAVE been collecting my notes for the last twelve months, and the difficulty is to condense them. With exhibition Roses there is a definite standard, and the raiser knows that if a Rose does not come up to that standard it is useless calling it an exhibition variety, but one cannot help being suspicious that a standard is quite lost sight of when we come to deal with decorative Roses. Any Rose not up to exhibition form is immediately labelled decorative. This applies most strongly to our continental raisers. Out of curiosity, I ran through the catalogues of new Roses offered for sale, year by year, during the last seven years by one of our largest firms out of a total of roughly 260 Roses all raised on the continent. Thirty-five

only are now grown in sufficient quantity to be worth cataloguing in that same firm's general list for 1902.

The standard for decorative Roses should be as stringent as is the exhibition Rose standard. I presume there is a demand for these new Roses at 3s. 6d. each or they would not be catalogued; but one wonders where it comes from. One ought to remember, perhaps, that the continental Rose is handicapped by our climate, and does not therefore stand quite the same chance that the British-raised Rose does.

These facts have made me rather shy of dealing with new Roses from the continent, and if these notes consist mostly of comments on home-raised Roses, the reasons are not far to seek; it follows that if a continental Rose is well-spoken of it is worth trying.

Ards Pillar.—I referred to this Rose in the notes on exhibition Roses in the number of July 4, but undoubtedly its place will be among the decorative Roses. It is an excellent pillar Rose, rich velvety crimson, cupped form. Its raisers—Messrs. Dickson of Newtownards—have done much for the exhibition Rose, but some of our finest garden Roses have come from their nursery, and this variety is likely to add to their reputation.

Aimee Cochet, a very promising hybrid Tea from Messrs. Soupert and Notting, colour flesh, with a rosy peach centre, flowers large and full and with a good point. It is a good grower and one of the best of this well-known firm's recent introductions.

Alberic Barbier.—This was well shown by Messrs. Turner at Holland House and the Temple, and is one of the wichuriana hybrids. It is a very strong grower, with dark foliage, contrasting well with its creamy white (deepening to yellow in centre), flowers semi-double.

Auguste Barbier is also excellent, possibly to be preferred to the last. It is free blooming and its semi-double flowers are produced in panicles; the colour is rosy lilac.

Jersey Beauty is becoming better known; it is still one of the best and will grow 20 feet in a season, palest yellow flowers and stamens.

Francois Foucard I saw growing well at Gunnersbury House recently. It struck me as an excellent variety, especially when I was told it was also an autumn bloomer; pale yellow in colour.

Paul Transom has a strong tea perfume, and is quite distinct, with the well known characteristic dark green foliage, flowers in panicles of good size, and its rose-coloured flowers are larger than usual and double.

René André is one of the prettiest, but the growth not quite so vigorous as some of the others, its flowers are semi-double, saffron yellow, the buds being sometimes a deep orange-red.

The last mentioned six Roses are all wichuriana hybrids, and make a charming set. Their price will be quite reasonable in the autumn, and everyone should grow them; they make good standards, but are at their best on steep banks, where they can ramble at will.

Arethusa.—A new China Rose that promises well, deep yellow in colour, tinted with apricot. A free flowering hybrid China. From Messrs. William Paul of Cheshunt.

Blush Rambler.—A new seedling Polyantha climber that I think very highly of. I am not at all sure that it is not the best seedling that has so far been put on the market. It is an excellent grower, very sweetly scented (a quality which few of the Ramblers have). Its truss is very large, and the flowers have room to develop, so that it does not get that too

crowded appearance that is a common fault. Its flowers are nearly single, of Apple blossom colouring, and altogether it can be highly recommended. It was raised by Messrs. B. R. Cant and Sons of Colchester, and plants from the open ground will be ready in November.

Chameleon.—Another of Messrs. William Paul's "Riviera" Roses, rosy flesh colour, with a fine deep-coloured outer petal, sometimes almost crimson on the buds. It has been well shown by the raisers, and will make a useful bedder. Another of the same class from the same growers is

Corallina.—Introduced in 1900, but I mention it here as it is an excellent bedder, very pretty in the bud, deep rosy crimson in colour, and good in the autumn.

Climbing Caroline Testout.—If all the plants of this Rose are as good as the specimen I have seen we have got something worth having here. Unfortunately, there is a tendency to revert back to the type amongst the climbing sports. This Rose needs no description; it was sent out last year by M. Chauvy.

Conrad Strassheim.—Sent out as a Hybrid Tea, but it has more of the appearance of a Tea, and is best described as a brighter Souvenir d'un Ami. The colour is rose, reverse of petals carmine, nice long bud. Distinctly promising.

Conrad F. Meyer.—One of the earliest of all Roses and at the same time one of the most vigorous growers. It would make a fine hedge. Messrs. George Paul and Son of Cheshunt had a fine bunch of it in their first prize stand of R. rugosa at the Holland House show. I believe we are indebted to Mr. James Hudson, of Gunnersbury House, for introducing this Rose to this country. It has all the good points of the best of the rugosas with the colour of Mme. Gabriel Luizet.

Comtesse Sophy Torby.—A fine large flower. When I saw it last autumn it had bright coppery orange flowers with deep pink centres, but I was told that in the summer it was almost peach-red with deeper coloured centres. It is tea-scented and a good grower.

Dainty.—Another "Riviera" Rose from William Paul's. It is pale primrose in colour, with a deeper yellow centre, sometimes edged carmine, flowers medium size, neat and compact, produced in clusters that are light; in a word, this Rose is well named.

Dorothy Perkins.—Now too well known to need description.

Ellen Willmott.—A Rose I have not seen growing, but a bloom of it in Messrs. George Paul and Son's stand at Sutton show this year struck me as being something that was wanted. A Hybrid Tea, nearly white, of good shape and substance. I cannot find it in any catalogue, so presume it is new. Shall be glad to hear more of this Rose.

Field Marshal.—A climbing China Rose (semperflorens) crimson in colour, of the shade of the old Cramoisie Superieure, but the shape and size is an improvement on that old friend. A good Rose that has received an award of merit from the Royal Horticultural Society.

Frau Peter Lambert.—This Rose promises very well. It has been well exhibited in the show box, but I think its right place is with this section. It is very free flowering, deep rose, shaded salmon, a pink Kaiserin A. Victoria.

Goldelse, another sport from K. A. Victoria, good colour golden yellow, but the flowers are not so full as those of its parents. Good grower and hardy.

Irish Brightness, Irish Pride, and Irish Star.—These three Roses are all singles, the first a Hybrid Tea and the other two pure

Teas; they are all three beautiful as shown by the raisers, Messrs. Dickson and Sons, who peak very highly of them. I liked Irish Pride, but the others I have not seen.

Lady Battersea.—Too good to be omitted, although now well known; it is very charming in the bud. Messrs. George Paul and Son till continue to give us beautiful Roses.

Lady Roberts.—This gem amongst English-raised Roses has become as popular as was generally anticipated when it was first exhibited by the raisers, Messrs. Frank Cant and Co., of Rochester, two years ago. I saw a very pretty bud of it growing in the shade (that is, protected from the midday sun) and the colour was superb, especially of the younger flowers. No grower of new Roses should leave this Rose untried.

Leonie Lamesch.—Not new exactly, but sufficiently good to be mentioned, unique colouring, brightest copper red. This charming little polyantha should be more grown.

Mme. Antoine Mari.—This Rose has been very highly spoken of. It is Tea-scented, rose splashed white, handsome buds which open well, growth vigorous; it has been awarded medals on the Continent. From the grower whose name it bears, as also is

Mme. Vermorel, which is very fine, colour rose with coppery yellow centre shaded red, large buds on long stems, also a Tea.

Mme. Charles Monnier.—A semi-climbing Hybrid Tea from Pernet Ducher that promised very well when I saw it in the Braiswick Nursery of Messrs. Frank Cant and Co. The flowers are rosy flesh, yellow centre, of large size, full and globular.

Marie Louise Poiret.—A cross between Caroline Testout and Marquise Litta that I like very much. It is like both parents—that is, the colour rose shaded deeper in the centre, and it has been well exhibited this year. Introduced in 1900 by Messrs. Soupert and Notting, must not be confounded with

Marguerite Poiret, introduced by the same firm only last year. This is also a good Rose, bright china pink, with yellow reflex, flowers large, full, and shape good. Very pretty in the bud.

Mark Twain.—An American Rose of some promise. Its raiser states that it is better than Mrs. W. J. Grant or Belle Seibright, as it is called "across the pond"; but the blooms and plants I have seen so far do not bear out that statement. Still, it is an excellent flower, and perhaps a better grower.

Marquise Jeanne de la Chataigneraye.—It is perhaps as well that this Rose does not promise so much of account. What a handicap—thirty-one letters only! Colour silvery white, yellow centre.

Mercedes.—A pale pink rugosa, almost the old maiden's blush colour—that is, distinct and very pretty. I do not know who introduced it, but it is a great improvement on many of the rugosas which are grown.

Morning Glow.—Another of William Paul's Roses; it is a grand colour—bright crimson suffused orange, with good petals; can be recommended.

Prince de Bulgarie.—This I also referred to in my notes on show Roses, but it should not be omitted from this section; it is one of Pernet Ducher's best, and that is saying a great deal.

Peace.—A pale yellow sport from G. Nabonnand, and doubtless, like its parent, at its best in autumn. Not too good a grower.

Queen of Sweden.—I like this Rose very much; it was raised by George Paul, of Cheshunt, and well shown at the Temple May show. It is quite distinct, and will be found

useful; its colour is very variable, sometimes salmon, fawn-white like Antoine Rivoire, and then a flower will come almost orange, and occasionally pink. Messrs. Paul recommend it for pot culture.

Rugosa repens alba.—Another Rose from this old-established firm of Rose growers that was awarded the gold medal at Holland House. It is a grower of great vigour and makes an ideal weeping standard—the parent plant at Cheshunt covers 100 square feet of ground. It is undoubtedly a cross with wichuriana that, I believe, came by chance in the nursery. It combines the best features of both its parents.

Salmonea and *Sulphurea*.—Two Roses that can be thoroughly recommended as bedders. Excellent as all these Riviera Roses are in the autumn, their names are descriptive of the respective colours, the first-named being particularly attractive.

Senateur Belle is a Hybrid Tea, salmon-pink with yellow centre, outer petals splashed carmine. I think it will be worth growing; the flowers are large and globular.

Souvenir de Jean Ketten.—Another Hybrid Tea, good in every way. Colour rosy carmine, shaded crimson. The buds are long, opening into large perfect flowers, a good grower, and altogether one of the best of the new H.T.'s.

Souvenir de Pierre

Notting.—From Messrs. Soupert and Notting. We all hope it will prove a yellow Maman Cochet. Some very fine flowers have been exhibited. It is one of the best new Teas, and will be largely grown by exhibitors.

The Wallflower.—An excellent Rose for a hedge, a lighter coloured Crimson Rambler, flowering in a similar fashion; it is one of Messrs. Paul's Cheshunt Roses.

Tea Rambler.—Its flowers are produced freely and in clusters, and are sweet-scented. For a summer flowering Rose it lasts a long time in flower. The colour is deep coppery pink, changing to soft salmon-pink, and during the process some curious effects are seen. A correspondent writing to me says:—"I like the new Tea Rambler, the flower is pretty, but looks sometimes as if a Strawberry had sat on it and leaked a bit." This also comes from Cheshunt.

Una.—Another Cheshunt Rose, a cross between the Dog Rose and Gloire de Dijon,

or one of its near relatives. There is a fine bed of this Rose at Kew. Buds are yellow, changing to creamy white on opening, of large size, quite (when well grown) 3 inches or 4 inches in diameter; nearly single; makes a fine hedge; altogether to be recommended.

Waltham Rambler.—A new Rambler after the style of Leuchstern, paler in colour, but more vigorous in growth; very pleasing, and well shown by Messrs. William Paul at the May Temple show; fine large panicles of flowers.

HERBERT E. MOLYNEUX.

Brantwood, Balham, S.W.

NOTES ON HARDY PLANTS

HARDY PLANTS IN FLOWER AT KEW.

GENTIANA LUTEA.

ONE of the most striking plants in the herbaceous ground at Kew is *Gentiana lutea*. It is growing in one of the borders there in ordinary good garden soil, and during late June and early July was at its best. The leaves are large, broadly ovate, forming a rather dense tuft some 12 inches to



GENTIANA LUTEA IN THE HERBACEOUS GROUND IN THE ROYAL GARDENS, KEW.

18 inches high. The flowering stems, which are from 3 feet to 4 feet high, have numerous large leaf-bracts oppositely arranged. In the axils of these the yellow flowers are very freely produced in bunches. When at its best this Gentian is a striking and effective plant. The growths usually flower when two years old.

CHAMÆLIRIUM CAROLINIANUM.

This is a North American plant that appears to be quite at home on the north side of the Kew rock garden, growing in light soil and a somewhat moist situation. As the illustration of it will show, it is extremely effective when in flower. It is of tufted habit of growth and spreads fairly rapidly, so that to obtain a good plant is only a question of one or two seasons' culture. The leaves are broadly lanceolate, and the tufts which they form not more than 3 inches or 4 inches high. The flower-spikes, bearing towards the top a great quantity of small white flowers, are from 18 inches to 24 inches high, and a good plant will produce several. Late June and early July are also the times of year at which this plant is at its best. Those who can give it the conditions mentioned above should not fail to add it to their collections.

SAXIFRAGA LINGULATA VAR. LANTOSCANA.

In some works of reference *S. lantoscana* is given the rank of a species, but in the "Kew

Hand List" it is now classed as a variety of *S. lingulata*. It is a handsome plant, bearing slightly drooping racemes, and the flowers so arranged on both sides of the rachis or stalk as almost to present a flat surface. It is not at all difficult of culture if given a position freely exposed to the sun and a well-drained soil. There is a variety *superba* of more robust habit, and bearing arching racemes of white, crimson spotted flowers. June is the month during which *S. l. lantoscana* and the variety *superba* are at their best. The former may be increased by division.

TREES AND SHRUBS.

CUPRESSUS LAWSONIANA AND SOME OF ITS VARIETIES.

THE Lawson Cypress, though introduced to this country only about fifty years ago, is now one of our most common conifers, while in point of numbers its named varieties equal those of any other hardy tree or shrub. It is one of the most variable of plants; this can be seen in a bed of seedlings where all types from the thin, upright form to the spreading, semi-pendulous habit of the typical plant can be found. In its native

habitat of Northern California and Oregon *C. lawsoniana* forms a tall, elongated, pyramid-shaped tree, reaching 100 feet or more in height, with short, horizontal branches which are semi-pendulous at the ends. In this country it will probably in course of time reach to practically the same height, as its growth is vigorous, and it seems quite at home in nearly every part of the country. In several places it has already become half naturalised, as seedlings have been found in considerable numbers near large trees, and seem to thrive and do well. Its bright, glaucous green foliage and graceful habit render it conspicuous wherever planted, and this is enhanced every spring by the bright crimson male catkins which appear in considerable numbers near the ends of the branches. A closer inspection at the same time will show the tiny cones near the catkins, they ripen and shed their seeds, nearly all of which are good in the first year. It is a diffi-

cult matter to make a selection from the numerous varieties, but those most worthy of growing are represented by the following:—

Var. albo-spica.—This is of close-growing habit with the ends of the shoots tipped with silvery white. It is a handsome plant, especially in the spring, but is rather slow of growth and a bad plant to move when it has attained any size.

Var. Alumi.—This is a vigorous, upright conifer, with flattened branches of a bright glaucous tint. It is a form that gets better the bigger it grows, being rather of a thin habit in a young state.

Var. argentea.—This has nearly the habit of the type, being perhaps more compact and less pendulous at the extremities of the branches. There is, however, considerable variation in the forms met with under this name. The plant is vigorous in growth, and has a whitish glaucous tint, which is very attractive at all seasons. Vars. *glauca*, *Silver Queen*, and *Triomphe de Boskoop* are of much the same habit, but differ somewhat in their degree of glaucousness. The latter is considered by some to be one of the "bluest" conifers we have.

Var. erecta viridis.—This is a well known but considerably over-rated form, with upright flattened branches of a bright grass green colour. The arrangements of the branches, however, springing as they do from near the base of the plant, is very much against its use as a large specimen, as snow, or even heavy rains, will break the plant open by bending the branches; from this they rarely properly recover. In a small state it is a useful plant for decorative purposes.

Var. Fraseri.—This resembles var. *Alumi* in habit, but is not so glaucous.

Var. gracilis.—This is a form of globose habit with slender branchlets pendulous at the ends. It is of a pleasing green colour, which is good throughout the year, and makes a capital small specimen, but takes many years to attain any size. There are also vars. *gracilis argentea*, *gracillima*, and *gracilis pendula*, but the true *gracilis* is the best for general planting.

Var. intertexta.—This is a tall growing, spreading form, with rather coarse foliage and semi-pendulous habit. It is a strong, robust plant, which quickly attains a considerable size.

Var. lutea.—This is of a uniform bright yellow colour, which is conspicuous throughout the year. It is of strong constitution—an important point with coloured conifers—and soon attains specimen size. In a small state it is a difficult plant to move with safety, but is better when it has attained a height of 2 feet or 3 feet.

Var. patula.—This is of a pyramidal, compact habit, and dark green, shining foliage. The branches are flattened, and spread out fanwise towards the extremities. It is of strong growth.

Var. Smithii.—This is a glaucous green form of upright, pillar-like habit, being the same diameter at the top as it is at the bottom. The foliage is fine and much divided, and the whole plant is very distinct and graceful.

Var. stricta.—This is a slender, upright plant, with dark green foliage, and somewhat resembles var. *erecta viridis* in outline, but the short branches spring from a central trunk, and rarely, if ever, suffer from snow or high winds.

Var. versicolor.—As its name implies, this is of a mingled green and gold colour. It has a vigorous, spreading habit, but the spotty effect it produces is not likely ever to render it very popular.

Var. Westermanni.—This is a form with



CHAMÆLIRIUM CAROLINIANUM AT KEW.

bright golden yellow shoots and wood, the colour of the former being mainly towards the ends. It is of a spreading, semi-pendulous habit, and soon makes a fair-sized plant.

There are many more varieties, some of which may be considered equal to those I have mentioned, but enough have been named to be a guide to those who want a selection of garden plants and not a collection of varieties. One form, C. l. var. *densa* or *nana*, is worthy of notice, as it is a dwarf, close-growing plant, suitable for the rockery, taking many years to attain a height of about 3 feet. J. C.

PHILADELPHUS MANTEAU D'HERMINE.

THIS pretty little shrub is now in flower, and is one of the best of the set which we owe to M. Lemoine in crossing *P. coronarius* with *P. microphyllus*, the first of which was the now well-known *P. Lemoinei*. The one under consideration has double flowers of the purest white, each flower perfect in shape, and very freely produced on the slender, twiggy stems. It makes a small shrub 2 feet to 3 feet in height, and is much benefited by the cutting away of the older wood when flowering is past. The flowers are very sweetly scented, and are useful for indoor decoration, the scent not being so strong as to be objectionable, as is the case with the majority of the Mock Oranges.

Bagshot, Surrey.

J. CLARK.

NOTES FROM SWANS- WICK.

PLANTING MOISTURE-LOVING FLOWERS.

It is hard to imagine a more uncanny little plant, as far as appearances go, than *Pinguicula lusitanica*. It is more like a few pale yellow fish scales doubled up together than anything else, that is, during that stage of its being to which mine have at present attained. I have been planting a tiny bog round a sort of big flower-pot saucer with this and the minute *Pinguicula vulgaris*, which also has a pallid and anæmic air about its wee rosettes, and little clumps of *Sentiana verna*. I have been trying to reproduce in miniature the exquisite wet peat meadows near Munich, so vividly described by a correspondent of THE GARDEN some time ago, and to this end intend immediately to add *P. arinosa*. The plan of sinking a porous, shallow, terra-cotta pan, and planting in peaty loam and sand round it, keeping it full of water all the summer and spring, seems to answer so well for *Primula rosea grandiflora*, a planting of which is doing grandly thus created, that I hope the three little things mentioned above may also succeed. I find it far better to do all my planting of small choice alpine, &c., in summer. While they are in full growth, and especially just after flowering, they seem to take to a fresh place at once, and the only trouble is in keeping them carefully watered, which, of course, is a necessity. But if I plant much in autumn the unestablished roots rot in our hen cold, damp, and heavy soil, that seems to affect them even though they may be in special compost; mists, vapour, and exhalations, I suppose, rise from it all round them. If, again, I plant in spring, the parching and bitter winds we always get now give them such a check as is not easy to outgrow.

But all the alpine I have turned out of pots—of course I am speaking of those grown in pots for his purpose—from about May 25 onwards, in his and former years, have invariably gone on well where they were properly attended with water. It would be different, of course, in a very

dry garden. I have no doubt whatever that Mr. Pearson is quite right in his correction of my misstatement as regards

DELPHINIUM BELLADONNA.

I said in my haste that some of the plants I put in last autumn were seedlings, but if the plant is sterile of course they could not have been; the explanation is that I bought young plants, nice healthy young plants too, and did not stay to consider whether or not they were what they looked like. I suppose, as it cannot be propagated thus, that accounts for its weakness of constitution. It is such an exquisite thing, and one never seems to get the exact shade in the ordinary *Delphiniums*, although I have a very good range of blues, from the darkest to the palest, in seedlings of these now flowering for the first time, the strong soil suiting them well. As for the *Lithospermum*, I believe the crux of the matter, so far as mine are concerned, lies in those three pregnant words of Mr. Pearson's, "On the level." The only two potsful of this lovely gem that have ever lived with me have been two planted thus casually, and after the careful arrangement

La Czarine, a good cropper, bright red, some very large berries of elongated shape, with markedly polished smooth shoulders, irregular in size, sweet, excellent flavour.

White Pine, difficult to pick, as it is impossible to judge accurately of its ripeness, a white or faint blush in colour, pink seeds, small round berries, all one size, prolific bearer, most delicious flavour.

Ananas Perpetuel, a failure, no crop, shy, small, and of no merit in taste.

Michigan, a large, coarse, knobby berry, dull in colour, no flavour, and a poor crop.

Leon XIII.—Very like *St. Joseph*, but not so good, less prolific, small bright red berries, sweet and soft. Of course the merits of this latter with the other perpetuals cannot be properly assayed until the end of the summer, but even if a soft, woolly, tasteless Strawberry does bear for months together. It is not much good, as everyone is soon tired of it.

SCHIZOCODON SOLDANELLOIDES,

on first acquaintance, is rather a hopeless-looking plant. It is like a few little half-dry bits of dark



SAXIFRAGA LINGULATA VAR. LANTOSCANA AT KEW.

of the rest which ended so dismally had been made. Last August we planted some experimental rows of

STRAWBERRIES,

the testing whereof has been a matter of interest. The runners came from France, were very strong and good, and went ahead well from the first. Perhaps it is needless to say that Royal Sovereign, previously in possession, came out an easy first, but one or two of the others we think worth preserving.

The summary, according to our experience, is as follows: All ripened together, within a few days, and picking began on June 26. Soil, a good loam over clay, well trenched.

Goliath.—This is the Strawberry originally raised in Bath by Mr. Kitley. Large berries, irregular in shape, good bright red, no special flavour, and a trifle sour. A poor crop.

Brandyvine (an American berry).—Small, prolific bearer, good colour, no flavour, rather sharp. This should be an excellent jam Strawberry.

The well-known *St. Joseph*, allowed, as it should not be, to ripen its first setting, had very prettily shaped and coloured berries, small, very sweet, and deliciously flavoured, all one size. A large crop.

red Barberry leaf, the same leathery crackling texture. I am making a little colony of *Shortia galacifolia* and *uniflora*, *Galax aphylla*, and the first-named, and certainly a reputation for being hard to grow, is justified by such an appearance on introduction. The sweetly pretty bright blue-lilac flowers of *Haberlea rhodopensis*, more like *Streptocarpus* than the *Gloxinia*, to which they are generally compared, are most attractive, but the plant is evidently terribly sensitive to the slightest drought. Even one hot day without watering, although it is well tucked into a shady rock recess with a big stone keeping the sun off it, caused it to curl its corrugated leaves inwards instead of letting them lie in the normal flat rosette, and look quite withered, a condition to give the grower with a shock of terror lest it should be gone for ever.

If once the middle of its hairy rosette, like those of the *Ramondias*, gets full of soil it is most difficult to clear it out, and when I make another planting of things of this kind I shall be more careful, as they seem to dislike having foreign substance lodged between and about the younger leaves, and yet to be unable to get rid of it.

CONANDRON RAMONDIODES

which lives with them and shares the same affection for a shady, moist rock face, is much more manageable, as having leaves that, though they are much the same shape and also arranged rosette wise, are smooth and not hairy, and convex instead of concave. I find it is good to have alpine, &c., which like the same sort of treatment together, as these all can be watered at one time and labour is saved; also, as someone lately remarked, they do better where the soil bulk is of one nature than where they only have an oasis of, say, sandy peat and loam, in a surround of something else. I saw that M. Correvon remarked of one or two of the Primulas that they like the company of their own species and will not grow in an isolated position; this suggestion opened my eyes to the fact, which I think undoubted, that there are many other delicate plants of the same way of thinking. Even among my few alpine this is most plainly observable. The *Glossocoomias*, for example, which are quite easy to grow here, and do well on the rockery and on the level border beside a path, grow appreciably faster when two or three are planted together than when one is alone. What a lovely thing *G. ovata* (*Codonopsis ovata*) is! The bell, so large for the size of the plant, is very pretty when you look at it from above and only see its plain delicacy of grey-mauve colouring. But when it is reversed, and you look inside, what a revelation of rich colour and exquisite markings! The first flower comes out at the top of the stem, then another lower down: rarely more than one at a time on a stalk. It is a very tender-looking little plant, but nevertheless, after dying quite down each winter, comes up with quiet persistence and several sizes larger with every returning spring. I have not seen the green-flowered form in blossom, though I now have it in the garden, but I am told, and can easily believe, that it is not nearly so attractive as the other. I have one clump of *G. ovata* in sandy loam on the level in full sun, and two on the partly shaded side of a rockery about 18 inches from the ground in a level pocket of sandy peat and loam; all three are equally healthy, so it cannot be such a difficult plant to grow as is sometimes supposed. I daresay it would hate smoke or any townish contaminations of the air, as its delicate, faintly tomentose leaves would soon suffer. How very much more useful from a decorative point of view are the

OLD CLOVE AND THE MARGUERITE AND GRENADIN CARNATIONS,

in their varieties, than the choice border Carnation from layers. Here I have masses of good-sized flowers in different shades of rose and scarlet, intensely floriferous, and most charmingly bright and gay, the result of a sowing of *C. Grenadin* seed last year.

Very few of the plants turned out singles, and the flowers are of good size; of course all are fringed. They have been in flower since the middle of June, while the first *Clove* Carnation came out the second day of July, and both will continue for months. Not one border Carnation is showing colour yet (July 5), though they are going to be plentiful in blossom, and they will be all over long before the crimson *Cloves*, which last year were still blooming at the end of November, and were only spoiled by the excessive wet.

THE WHITE EARLY GLADIOLI THE BRIDE

are very lovely just now. Some of them are among dwarf bush *Roses*, where their lemon-tinged whiteness is exquisitely framed by young copper-tinted shoots and the *Tea* blossoms in their delicate shades.

THE WICHURAIANA ROSES, though quite young and still small, are extremely promising for another year. *May Queen*, a bright crimson double, very like *Cramoisie Supérieure* in flower and colour, is, to my mind, infinitely superior to any other I possess. The undecided yellowish pink of *René André* is, of course, the kind of thing that is fashionable and continually being aimed at just now, but colours like this are wonderfully set



THE BEAUTIFUL ORCHIS LATIFOLIA IN THE BOG GARDEN AT KEW.

ORCHIS LATIFOLIA.

OF our native Orchids this is the most vigorous and, on the whole, the most striking, and, moreover, one that usually does well under garden culture. The plant shown in the accompanying illustration is growing in that portion of the Kew rock garden devoted to bog plants. The leaves are large and handsome, being heavily blotched with purple-brown, while vigorous plants will produce flower-stems from 2 feet to 3 feet high, the flowers being produced in the axils of small leafy bracts, which are numerous upon the stem. *Orchis latifolia* delights in a cool and fairly shady position and moist soil. Nowhere have we seen it finer when growing wild than in one of the most inaccessible parts of Burnham Beeches, in a spot shut in by trees where the sun could rarely penetrate, on the bank of a small stream. The soil in such a spot consists almost wholly of decayed leaves (of the Beech largely), so that an excellent idea of its requirements may easily be had. They have been successfully provided at Kew, and are almost identical with those under which *O. latifolia* grows wild, except that the Kew plant enjoys more sunlight. H. T.

AN ARTIST'S NOTE-BOOK.

CAMPANULA PEREGRINA

ONE of the most interesting plants before the floral committee of the Royal Horticultural Society recently was this biennial *Campanula*, which was shown by Messrs. J. Veitch and Sons of Chelsea, and given an award of merit. It will make a welcome flower for the conservatory. The flowers are bell-shaped, pale blue to violet-blue in colour, the ovary being encircled, as also the base of the corolla, with deepest violet-blue. They are arranged in a dense spicate raceme 2½ feet high. The plant is much branched from the base, thus enhancing its decorative value. The species, however, is a very old one. These free-growing *Campanulas* are of the greatest value in the conservatory, and *C. peregrina* is so in particular. It is exceptionally free.

ROUND ABOUT A GARDEN.

THE MUSIC OF JULY.

JULY is described as the silent month; and, indeed, the chorus of thrush and blackbird has fallen all to pieces. You can now walk among the shrubberies in early morning without that buoyant feeling that you are taking part in the full choral service of Nature. Throughout the sunlit day, too, the skylark orchestra is now so thin and fitful that you actually notice

off by having a good glowing crimson *Rose* somewhere at hand to show them up; such, at least, is my heresy.

Pink Roamer, so often recommended, is a nice bright pink, not, however, without a faint suspicion of magenta at first, but it goes off to a most horrible dull exaggeration of the latter unpleasant hue, in which state it is far from pleasing.

The good deep rose-pink of *Anne of Geirstein*, the Hybrid Briar, glows like jewels behind an 18-inch high mass of some *Geranium*, whose name I have lost and forgotten, whose large flowers are of the most brilliant and perfect shade of violet-blue. The combination sounds rather painful, but in reality is glorious.

Swanswick Cottage, Bath.

M. L. W.

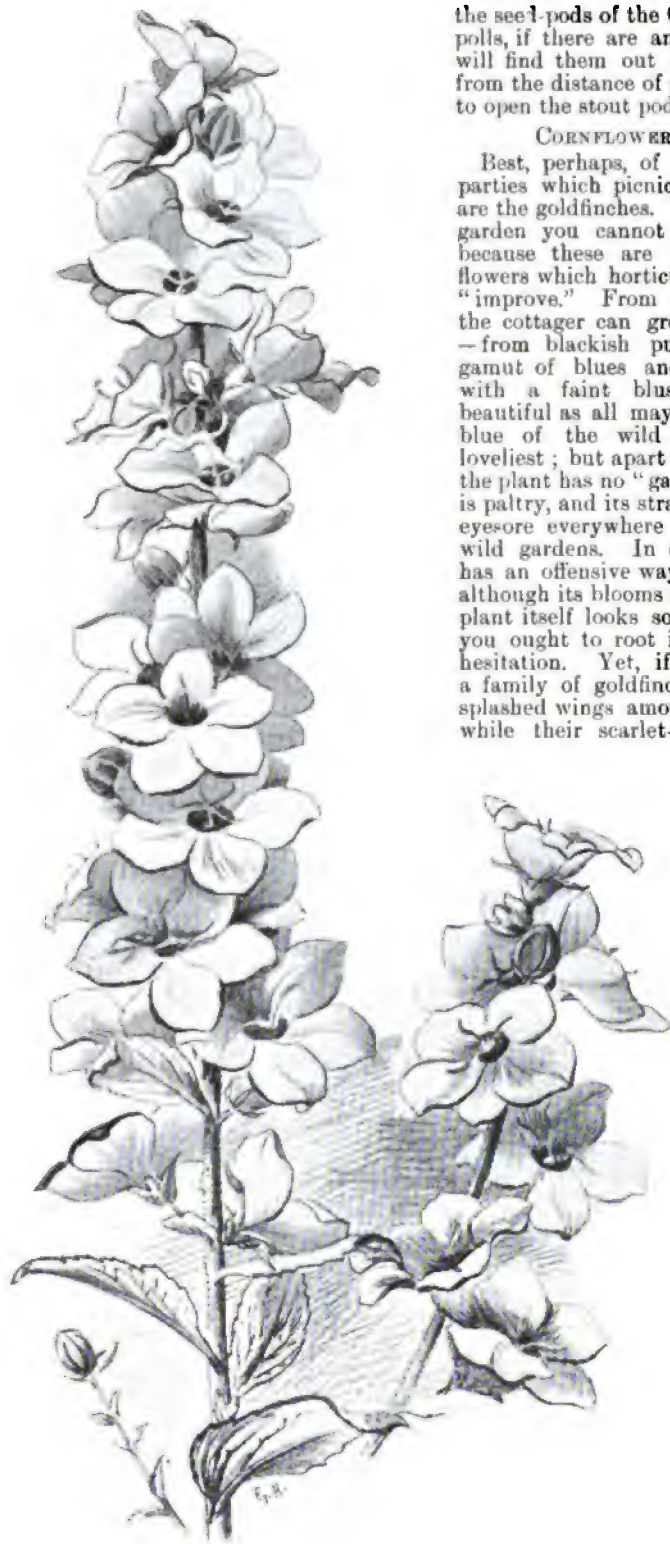
when a skylark is singing. Last month the whole sky vibrated with song, and you walked under it unconcerned. But the two greatest gaps in late summer's programme of music are caused by the departure of the cuckoo for foreign parts and the silence of the nightingale. Not that the nightingale is actually silent. From his point of view he probably has more to say, and says it oftener in July than in May. He says it to wider audiences, too, because so soon as the young nightingales are fairly fledged they are escorted round the country from spinnery to shrubbery, and from shrubbery to coppice by their noisy parents. In this wandering we see no doubt the first stirring of the instinct which culminates in overseas migration; but the music to which the nightingales march with their families is very different from the liquid melodies which they poured out round their nesting sites in spring. "Kruk-kruk," says a deep harsh voice in the shrubbery. "Kruk-kruk," a little further off. "Kruk-kruk," a little nearer. Watching, you catch sight of three or four bright russet-coloured small birds, obediently trooping after that croaking voice. It is a family of nightingales being personally conducted by their parents round the neighbourhood.

VOICES OF SUMMER.

But, though the nightingale has exchanged his cornet-flute for a sort of foghorn, and both the ballad-singing blackbird and the thrush *improvisateur* are seldom audible, except when they chatter out of a bush before you or raise a persistent outcry because some wandering cat or weasel is near their brood, there is music enough in the garden. The confident carol of the robin and the twisting trill of the hedge-sparrow suggest, perhaps, uncomfortable thoughts of coming winter in the new prominence which their simple songs assume; but the music of the wren carries on the traditions of spring, and in the notes of yellow-hammer and cirl bunting we hear the same iteration of the continued presence of summer as shrills in the grasshopper's music. The very heat haze which shimmers over the meadows seems to vibrate to the yellow-hammer's tune, which he repeats four times to the minute from the top of the garden hedge. Nor have all of our summer visitors in mid-July followed the example of nightingale or cuckoo. The white throat still fills himself up into the air out of an evergreen and sings a quavering song as he descends. The sedge warbler still jangles musically from the shrubbery's recesses, and the swallows, house martins, and swifts are noisier now than ever with their broods launched in the mazy whirl of life, all twittering and screaming with the joy of it.

BIRDS AND WEEDS.

At every turn the nursery noise of birds reminds you that the breeding season has trebled the feathered life that finds a temporary home inside your garden fence. You never suspected a bullfinch's nest in that Crimson Rambler on the trellis, but the soft notes of bullfinch conversation surround you now on every side. The gardener has some remarks to make, too, about the family of hawfinches which visit the Green Peas in the very early morning before he gets to work, and the resonant "chew-chew-chew" of young greenfinches seems to fill every corner of the kitchen garden. More musical, with their alternate high and low call-notes, are the families of linnets, and very handsome are the fathers in their ruddy waistcoats and pale-barred wings. But to have many linnets in your garden, even in districts where linnets



CAMPANULA PEREGRINA. Just over half natural size.)

are so numerous as to surprise the London visitor—who sees "cage-birds" in every hedge—you must have lots of weeds in seed, and it is not everyone who sighs to see a great Sow-thistle that had smuggled itself among the Sweet Peas uprooted, because he thinks how many linnets might have visited that weed. Where redpolls breed, too, you may be sure of hearing their deep, distinctive twitter wherever the Sow-thistle is found, and if in some "knuckle end" of your garden you can allow

the seed-pods of the Godetia to ripen, the redpolls, if there are any in the neighbourhood, will find them out and let you watch them from the distance of a few feet as they labour to open the stout pods.

CORNFLOWER AND GOLDFINCH.

Best, perhaps, of all the uninvited family parties which picnic in your garden in July, are the goldfinches. If you have a very formal garden you cannot grow blue Cornflowers, because these are common, straggling wild flowers which horticulture has not managed to "improve." From a penny packet of seed the cottager can grow them of every shade—from blackish purple, through the whole gamut of blues and pinks, to pure white, with a faint blush in the centre; but, beautiful as all may be, the original heaven's blue of the wild Cornflower remains the loveliest; but apart from this charm of colour the plant has no "garden" virtues. Its foliage is paltry, and its straggling habit makes it an eyesore everywhere except in the wildest of wild gardens. In dry seasons, moreover, it has an offensive way of crinkling up, so that, although its blooms are beautiful as ever, the plant itself looks so manifestly diseased that you ought to root it up without a moment's hesitation. Yet, if you have ever watched a family of goldfinches, fluttering with gold-splashed wings among the azure Cornflowers, while their scarlet-crowned parents taught

them how to cling to the yielding stalks and extract the seeds while hanging head downwards, you will be very loth to part with a single Cornflower. And the worst of it is that the more untidy and "seedy" the Cornflowers become, the more attractive they are to the goldfinches. This, however—like the Godetia seeds and the redpolls or the Sow-thistles and the linnets—is only another instance of the difficulty of keeping a tidy garden if you are fond of birds, unless the garden is large enough for you to make a "bird corner" in it.

THE PARTRIDGE QUESTION.

Just now the bird problem of my own garden is partridges. It recurs every year, and in much the same shape. This year there were eighteen eggs in a cunning nest under a young Austrian Pine in the shrubbery and seventeen chicks were hatched. Of these, one has died, because I counted only sixteen crossing the path from the Cabbages to the Raspberries a day or two ago. The gardener objects on principle to "nigh a score of birds" clucking and pecking among his vegetables, though he grudgingly defers to my assertion that young partridges only eat insects, and are, therefore, welcome guests in a garden. If they would not subsequently always choose seed-beds for

their dust-baths and pick up the seeds scattered during the operation, this argument might hold good to the end; but it always ends in a tacit compromise that the gardener may "shoo" the partridges out of the vegetables and even throw clods at them, so long as he is careful not to hit them, provided that they are unmolested when they walk about the lawns or the shrubberies. They soon learn that if they are hunted out of one part of the garden they may remain in another, and when the annual partridge drives take place in winter we have our reward. The countryside around may be re-echoing with the volley-firing of crack shots, piling up their score of so many hundred brace killed before lunch, but our garden will be full of the crowing and clucking of partridges, who knew where they would be safe when the noise began. They are scarcely as big as sparrows yet and cannot fly over a Cabbage, but in December they will be glad to come whirring over the Pine trees into sanctuary. E. K. R.

GARDENING OF THE WEEK.

INDOOR GARDEN.

AMARYLLISES now ripening up their growth in cool, airy pits or houses should not be prematurely deprived of water at the root so long as the foliage continues green, but keep the soil in the pots slightly moist, and during hot, bright weather a shading of light tiffany will protect the foliage from the fierce rays of the sun and allow it to complete its proper functions. Nerines, which are more advanced in the ripening process than the former, should be exposed to the full sun in cool, well ventilated pits, and as the foliage becomes exhausted and dies off moisture must be entirely withheld and the pots stored away in a dry shed or room.

CINERARIAS.

Young seedling plants established in 3-inch pots should be potted on before the pots become full of roots, otherwise they will receive a check, and those previously pricked out in boxes should now be potted singly in 3-inch or 4-inch size, according to the strength of the plants. These should all be placed in a cold frame in a shady position, or reverse the position of the frame and give it a northern aspect. Keep the atmosphere moist and shade the plants whenever the sun is powerful.

PRIMULA SINENSIS.

Young plants require a slightly warmer and drier atmosphere than the Cinerarias, and should be potted in a compost of one-third each of loam, leaf-soil, and peat made sufficiently porous by the addition of sand and broken charcoal. The earlier plants should now be ready for 5-inch pots, and after the potting should be placed in a frame near the glass and given a shading of tiffany on all bright days. Watering should be attended to carefully, and must not at any time be given in excess. The ventilation also requires close attention to keep the plants sturdy and compact, for if kept too close they quickly become drawn, and are apt to fall about in the pot.

TREE CARNATIONS.

Old plants of these in 6-inch or 7-inch pots from which the summer crop of flowers has been out may now be potted into pots one size larger, and grown on for next season. Where a cold house can be given them it is to be preferred to placing these plants out of doors. During the summer they require a light shade, and the house must be occasionally damped.

HUMEA ELEGANS.

As soon as ripened seeds of this season's growth can be obtained make a sowing for next year's display. Use small, shallow pans well drained and filled with equal parts of light loam and decayed leaf-soil, with a free addition of sand,

pressed moderately firm and watered before sowing. Cover the seeds very slightly and place a sheet of glass over the pan, which may then be placed on a shelf in a shady position in a somewhat close house or pit. In either position attend carefully to the condition of moisture of the soil or the seeds will not germinate freely.

CELSIA ARCTURUS.

As soon as the young seedling plants are big enough to handle prick them off to three round the side of a 3-inch pot, and in this way grow them on till they get into 6-inch or 8-inch pots, in which they will make a fine display during the early months of the year.

Wendover.

J. JAKUES.

FRUIT GARDEN.

MELONS.

PLANTS in pits and frames swelling off fruit will now take an abundance of water at the roots. During unfavourable, cold, wet seasons it is not advisable to water overhead in these structures, where the plants are more subject to canker than when grown in houses, and spider does not make so much headway; but advantage may be taken of a fine afternoon for flooding the bed with water at a temperature of 85° to 90° without wetting the foliage, and closing about half-past three, when the atmospheric moisture will produce conditions highly favourable to the rapid development of the fruit. Pay particular attention to the preservation of the old leaves, as they cannot be interfered with without producing a check, and give them full exposure to sun and light by cutting away all lateral growths and keeping the glass clean. Elevate the fruits on inverted pots, on a level with, but not above, the foliage, as some varieties are liable to become discoloured when they change for ripening if night airing is neglected. Attend well to the linings by turning and renovating with fresh manure before the heat in the beds shows signs of declining, cover with good dry mats, and give a chink of night air to prevent an accumulation of rank steam and condensation of moisture on the fruit. Get out young plants before they become pot-bound, and make a good sowing of some quick-fruited sort for coming in October.

CUCUMBERS.

If a heated compartment, perhaps now filled with Melons, will be at liberty in about three weeks, the present time will be favourable for sowing a few seeds of Telegraph or some other favourite variety for autumn fruiting. Be careful to cleanse the house thoroughly. Also prepare the necessary material for giving bottom-heat. Have it well worked before it is taken in, and defer plunging the fruiting pots or making the ridges until all danger of burning the soil has passed away. Make frequent additions of light, rich turf to the roots of plants which have been in bearing for some time, feed copiously with clean liquid, and water occasionally with warm clarified lime water to keep the hills free from worms.

CUCUMBERS IN FRAMES.

These are now in full bearing, and will require unremitting attention if they are to be kept in good order for any length of time. Dress them over three times a week and earth up with rich turf and old lime rubble as the roots find their way to the surface. Attend to the linings, as want of bottom-heat is often the forerunner of canker and mildew on plants in frames that have been started well and afterwards neglected. When the oldest plants show signs of exhaustion cut out all the fruit and old leaves, peg the plants down on the hills, pack the joints with pieces of fresh turf, and keep the frame close, moist, and shaded until new growth sets in.

Madresfield Court.

WILLIAM CRUMP.

THE KITCHEN GARDEN.

ENDIVE.

MAKE frequent sowings, plant out when large enough in rich soil, and keep well watered both with clear water and liquid manure. This is one

of those salad plants that should be accorded liberal treatment so that large, well blanched heads may be had in the quickest possible time; no bolting will then take place.

There are various methods adopted in blanching, viz., by tying when the leaves are dry, by placing inverted flower pots over them, and by laying a clean, dry roofing-tile upon each plant when about three parts grown. I prefer the latter mode for the curled variety, whilst the tying up process answers well for the Batavian.

GLOBE ARTICHOKE.

These are very late in producing heads this season, owing to the severe and continued check the plants received in May and June. Cut the stems down as the heads are cut, and apply a heavy mulch and frequent copious waterings. By so doing fleshy heads may be cut for a long period and the plants will be strengthened for another year. Having regard to the tenderness of this esculent there can be no doubt that it is a good practice to annually lift some strong side shoots in autumn and pot them up. Keep them in a cold house or pit, and plant out at the end of April; especially is this method recommended where the soil is stiff and cold and other conditions of the district are uncongenial.

PEAS.

The mid-season and late crops are looking healthy and robust in this district, and if not already done the surface should be mulched for the double purpose of conserving moisture and affording nutriment. Any check they receive at this time through becoming dry at the roots or impoverished will tend to bring on an attack of mildew and the ultimate diminution of the crop. It frequently happens that the haulm falls outwards from the supporting sticks, hence it is necessary to pass a string of cocoanut fibre down the entire length of the row, passing it round Bean-poles inserted firmly in the ground at intervals of about 10 feet to keep it tight. This operation should be repeated as growth proceeds.

TOMATOES FOR WINTER.

Sow seed or insert strong cuttings of varieties that are known to answer for winter fruiting. Winter Beauty is one of the best. Raise them in cool quarters and grow sturdily throughout. To ensure this avoid the use of fire-heat until cold weather sets in, and do not feed the plants. Pot on firmly as required, using a compost mainly of loam, adding sufficient nodules of charcoal and road grit to make the whole porous. Ten-inch pots will be large enough for fruiting the plants in.

ASPARAGUS BEDS.

Keep these free from weeds and treat liberally at this time in order that the plants may recuperate for another year. By ceasing to cut somewhat earlier than usual, and by feeding occasionally with salt, soot, and artificial manure, the growths now are exceptionally robust.

H. T. MARTIN.

Stoneleigh Abbey Gardens.

FLOWER GARDEN.

CARNATIONS.

THE Carnation and Picotee are best propagated by layers, and this important work should now have attention. The operation in itself is very simple, and very easily learnt by those who are so disposed. The operator should provide himself with a good kneeling pad, a sharp knife, and a pair of sharp scissors. Remove the leaves which ensheath each layer up to the third or fourth joint, counting from the top. This removal is generally effected with a slight horizontal rift, but where the layer is very succulent a pair of sharp scissors should be used. The plant being thus prepared, remove any dead leaves and a little of the old soil, and place the compost, previously prepared, round the plant. Take the layer firmly between the left forefinger and thumb and thrust the point of the knife through the third or fourth joint, as the layer may be more or less matured; band the layer until the joint just cut freely opens, press gently into the soil, and peg firmly. I have found from experience

that pegs made from the tops of Pea sticks answer best for this purpose. Galvanised wire is largely used, but this is liable to rust, and, if overlooked when removing the layers, may occasion the disruption and destruction of them. When layering is finished water lightly with the fine-roset pot. Should sparrows and other birds be troublesome when removing the soil from the newly-layered plants, sprinkle a little soot over the soil occasionally; this will help to keep them at bay.

FERN-LIKE PLANTS FOR THE FLOWER GARDEN.

However much we may appreciate Ferns in the plant houses, we have yet but rarely employed them in the flower garden, and there are many obstacles which are likely to prevent their use there. We have only to look among herbaceous plants to find many things with all the grace of a Fern and yet will withstand the sun as well as a Toadflax. *Thalictrum minus*, although growing freely in ordinary soil in the full sun and being perfectly hardy and permanent, is almost as attractive as *Adiantum cuneatum*. *T. adiantifolium* is a very interesting plant; the foliage is very pretty and most suitable for cutting. *T. aquilegifolium* is a fine border plant, with yellowish flowers and handsome foliage.

PRIMROSES AND POLYANTHUSES.

Those who wish to save seed of any special varieties of these must now keep a watchful eye on them, the former especially, as in sunny aspects it is very probable that the pods from the earliest flowers that have, as is the rule, curled down beneath the leafage have burst and perhaps shed their seed. A few days of warm dry weather serve to ripen seed of this description very rapidly. Seed should be sown immediately after it is gathered or it will grow with vigour if kept till the following spring. If sown now a bed of finely-pulverised soil in the open air will answer to perfection.

T. B. FIELD.

Ashwellthorpe Hall Gardens, Norwich.

SUPPORTING MELON FRUITS.

WHEN the Melon is growing under natural conditions it is a prostrate plant, and the fruit immediately it is formed finds a secure resting place on the ground, so that the stem of the plant at no time suffers from supporting its own weight. It is very different in the case of this fruit when grown under glass or trellis suspended from the roof. The question then becomes an important one as to which is the most effective method of helping the plant to bear the great weight of the crop it often carries. Amateurs and beginners are often puzzled in this matter, as from time to time many and varied contrivances are recommended. One or two facts should be borne in mind relative to this aspect of successful Melon growing, as they unquestionably have a certain bearing and influence on the success of the crop.

The first is that the support should be given before the fruit becomes heavy enough to bend and distress the shoot on which it is grown, that is, as soon as it is the size of a pigeon's egg. If left unsupported too long the tissues of the shoots become disturbed and damaged, unfitting them afterwards to develop and bring the fruit to perfection. The second important point to notice is to see that the resting parts of the support are well distributed under the base of the fruit, for if undue pressure is exercised at any one point at this and subsequent stages of the fruit's growth, the surface of the Melon may be disfigured by the line of contact being impressed permanently on it. So tender is the skin of the Melon at this stage of its growth that the least scratch will leave an indelible mark.

One noted grower years ago used to be credited with the practice of netting his Melons according to his taste and fancy by scratching the surface when young with a needle. As the fruit developed, so of course did the markings, presenting a pretty picture or not when ripe, according to the talent of the artist. I mention this to show the importance of providing supports which give a well-balanced support to the fruit.

Many growers are satisfied with tying the fruits under the trellis with a strong piece of matting passed crossways under the fruit. In the hands of capable growers this method answers very well; but there is always a danger of the matting shifting and the fruit falling, or of the decay of the matting, and so let the fruit drop. Another way preferred by many is to have pieces of board 5 inches square, and suspend the same under the fruit, fastening them by strings from each corner of the board to the trellis, and boring a hole in the middle to pass away moisture which may collect and settle on the former. This method gives steady and effective support to the fruit; but the objection to it is that the base of the fruit receives



A GOOD METHOD OF SUPPORTING MELONS.

its whole weight during growth, and often, in consequence of the moist atmosphere caused by syringing and evaporation, the boards are more or less damp always, causing many of the fruits to split and give way at the base before ripening. The method now most generally adopted and which we recommend is the one illustrated—namely, supporting by small nets specially made for the purpose. These are easily fixed, and the support is evenly distributed, with no undue pressure on any particular point, and there is no danger of the fruit falling. The only precaution to take under this method is to prevent the possibility of marking the surface of the fruit, and this can be done by occasionally hoisting the net, so that the strong markings are not always on the same part of the surface. OWEN THOMAS.

A large Cucumber.—Mr. E. L. L. Thornycroft writes from Thornycroft Hall, Sidington, Crewe: "My gardener brought me in recently a Cucumber, of which he was very proud. It weighed 3lb. 11oz., was 29 inches long, and 8½ inches round; it was Dickson's Excelaior."

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

CYTISUS ANDREANUS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I sympathise very much with Mr. Burrell in his disappointment in connexion with the planting of this very pretty and, I still think, very easily cultivated Broom, as described on page 437 of the last volume. I have found it quite at home in soils and under circumstances in which *Prunus pissardi* is found to do well. Were the plants which so failed such as are sometimes supplied by the trade grafted on the roots or stems of young seedling Laburnums? If so, the cause of failure would seem very obvious. Such plants rarely, if ever, give satisfaction; they generally, indeed, flower freely for a season or two, but soon become stunted and sickly, and die off after a few years. I would therefore advise Mr. Burrell to

procure a fresh stock, taking care that the plants are on their own roots—whether produced from cuttings or layers, or even seedlings—as, happily, from 20 to 30 per cent. of these are found to come true, and may easily be tested before they are planted out in their permanent quarters. H. F.

THE DOUBLE CRIMSON SWEET WILLIAM (DIANTHUS BARBATUS MAGNIFICUS).

[TO THE EDITOR OF "THE GARDEN."]

SIR,—“R. P.” in speaking of this plant says: “There is no doubt as to its being difficult to keep,” a statement requiring a little modification so far as my own experience goes. I have always found that in light, very sandy, much drained soils, it is certainly difficult to keep, while in the more holding and clayey soils the plant is one of the most easy to deal with of my acquaintance. This is not the result of a single experience, but in gardens and localities as far removed as Buckinghamshire, Birmingham, Gloucestershire, Cheshire, &c., where heavy soils have obtained, the plant

grew and increased most freely. On light soils as at Tooting and in this (Hampton) district it requires special care and attention, and even then is without much of the vigour of those grown in the more heavy soils. It may be in these colder and more tenacious soils there is a something very near akin to the "cool damp soils of Scotland," and it is in this the plant delights. In a Gloucestershire garden I once made an edging of it, and was amazed at its success and the way the plant grew from the base. In this district, to which repeatedly plants have been transferred from the above, the plant refused to develop. Obviously on the more holding soils the plant is a success, and on the reputedly light and warm soils can scarcely be comforted at all. I strongly advise those who garden on heavy soils to try it and report results.

Hampton Hill.

E. JENKINS.

BEDDING PANSIES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I observe Mr. John Fleming, when gardener at Cliveden, is credited with the popularising of the Tufted Pansy, or bedding Viola. In a certain sense that is true, because he largely employed in the huge beds at Cliveden the old Cliveden Blue, Purple, and White. But these were not of the strain of the Tufted Pansies of to-day. They were bedding Pansies of a very diverse race. It was not till some time later that the wordy war between the late John Willr and Mr. Edward Bennett broke out over the great progenitor of the Tufted Pansy, Viola cornuta, or that farther discussion as to the origin of its progeny, Viola Perfection, began. Then came many others, one of the most popular and widely grown being Blue Bell, raised as a chance seedling in Mr. R. Dean's garden at Ealing thirty years ago, and yet seen in many gardens, while myriads of others since raised and acclaimed have disappeared. John Fleming had, I think, passed away long before the Tufted Pansy of to-day had become what it is. If some varieties have been worthless very many have proved to be valuable additions to our flower gardens.

A. D.

MUSCAT VINES FAILING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am sending some Vine leaves for your inspection. Can you please say the cause of the yellow spots or markings on the leaves which eventually turn brown? The Vines until about three weeks ago looked in perfect health. They are grown in a raised bed which is wholly inside, and are about six years old. I have dug down into the border and find it in perfect condition as to moisture, and in doing so came across some fine healthy roots. I shall be pleased if you can suggest any remedy. I may mention that in among the Muscates, near the middle of the house, is a Lady Downes' Vine, which was planted by mistake. Instead of taking it out I put on a dormant bud of the Muscat last spring, which made a splendid cane by the end of the season. It is now carrying several good bunches, and, strange to say, this Vine is, with the exception of two or three leaves, free from the trouble in question. The Vines are growing in a span vinery running north and south, and it is the east side that is the worst affected, those on the west side are older canes, but are affected in places.

Yorks.

G. T.

[Our correspondent has placed before us very clearly a case of diseased Muscat Vine leaves, which one seldom hears of but often sees—namely, yellow spots on the leaves and margins, eventually causing the tissues affected to turn brown and wither away. This affection is certainly not caused by red spider, neither can we trace any indication of a fungoid attack. We think that somewhat might be thrown on the subject by submitting specimens of the affected leaves to the scientific committee of the Royal Horticultural Society.

We had an experience very similar to our correspondent's a few years ago, and we traced the trouble to be due to over-cropping the Vines while young. The Muscat in its early stages of life grows

rampantly, and if permitted will carry a heavy crop without injury for three or four years. There are very few cultivators who will not gratify their vanity by occasionally growing sensationally heavy crops, unconsciously ignoring the fact that Nature abused will have her revenge, inevitably causing disappointment and failure in after years. This is especially so in the case of the Muscat of Alexandria, as its constitution is not naturally so strong and vigorous as the majority of Vines. The foliage especially is thin, making it an easy victim to insects and various diseases. In our case the Vines had been planted five or six years in a raised inside border, and had succeeded remarkably well for the first few years, finishing off heavy crops of excellent Grapes. However, towards the end of June and early in July in the fifth year the Vines became affected in the same way as our correspondent's, and we feared a total collapse; however, by considerably reducing the crop, by the encouragement of lateral growth, by light shading with herring nets, and repeated soakings of clear lime water, we succeeded in ripening the Grapes perfectly. In the winter we thoroughly examined the border and found abundance of roots and came to the conclusion that by heavy cropping and copious waterings the comparatively limited soil of the border had been so impoverished, or the fertilising elements were insoluble owing to the absence of lime in the soil, that the Vines were starving. In late autumn we had as much of the soil removed as possible without disturbing the roots too much, adding to the new turf some $\frac{1}{2}$ -inch bones, a sprinkling of bone-dust, old mortar and lime rubble, not forgetting a liberal addition of quicklime. This treatment effected a complete cure, and we have not had a recurrence of the trouble since. Our case may not have been on parallel lines with our correspondent's, but we offer him our experience for what it is worth. This is a complaint of frequent occurrence with Muscat Vines, and we invite correspondence from our readers interested in the subject.—Ed.]

HYBRID WATER LILIES FAILING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Some four years ago I planted several Nymphaeas in an oval pond some 70 feet to 80 feet long by about 45 feet wide. The water is from 2 feet to 4 feet deep in winter, and 1 foot to 3 feet in summer, and chiefly supplied by rain. A few plants came up and flowered. The second year I planted some more. Still fewer came up and flowered. The third year I planted more, and none came up. Last May I again planted, and none appeared. I may mention all the Lilies were planted about May in each year in wicker baskets, in good loam, and all the Lilies were of the newer sorts. I may also mention the pond has been during the last three years, and still is, rather thickly covered with Duckweed.

Essex.

R. T. S.

[We sympathise with our correspondent, and consider after his successive attempts at growing these beautiful Lilies, that if he has not succeeded in commanding success he has certainly deserved to succeed. He seems to have observed and carried out all the details essential to success as regards soil and planting, &c. Yet, in our opinion, it is not difficult to point to the cause of failure, and this is expressed in the last sentence of our correspondent's statement—namely, "that the pond was rather thickly covered with Duckweed, and has been so for three years." From our experience of water covered by this weed in summer, we have no hesitation in saying that it is hopeless to expect to succeed with these Lilies while the water is in this condition. Nymphaeas love warmth, and in proportion to the warmth of the water in summer will be the measure of their success. As long as this weed is permitted to form a coating on the surface of the water, it is quite impossible for the sun's rays to penetrate. If the temperature of this covered water were taken—say 6 inches to 12 inches under the surface—and compared with water from weed, and open to the sun's influence, a difference in temperature would be found of not less than from 6° to 8° in favour of the latter.

Our correspondent, after clearing away the Duckweed, and subsequently keeping the surface of the water clear, will in future doubtless succeed with the culture. There are many ways of clearing the water of this weed—the most common way is by scooping it off with a fine sieve fastened to a pole. A man entering the water would soon clear the area mentioned, and by repeating the operation occasionally the water would be kept clear. In America, we believe, the surface of ornamental waters is kept free from weeds by spraying with Bordeaux mixture. The mixture is used in a diluted and weak state, and is found to kill the weeds in a few days. We have had no experience with this remedy ourselves, but it might be tried upon a yard or two of the water first, and, if successful, its application could be soon extended.—Ed.]

EXTENSION OF HAMPSTEAD HEATH.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your notice about the extension of Hampstead Heath showed your sympathy with the movement, and therefore you will, perhaps, allow me to add the names of the officers of the council and my address, to which offers of donations can be sent. The Right Hon. G. J. Shaw Lefevre is the President, the Earl of Meath is the Vice-President, Sir Robert Hunter and Mr. E. Bond, M.P., are joint treasurers, the Bankers of the Fund are the London and South-Western, Limited, 28, High Street, Hampstead, and Lloyd's Bank, Limited, Rosslyn Hill, Hampstead, and I am honorary secretary. Our first council meeting was held on June 26, but already nearly £7,562 has been promised, besides £3,000 conditionally offered; but that sum is a long way below the total of £48,000 that is needed.

It behoves, therefore, all who care to preserve the beauty and freshness of Hampstead Heath to send their gifts or promise *without delay*; and if any will bestir themselves to interest others, I shall be glad to send a paper giving full details, with a map, a picture of the Heath and the fields, subscription forms, and any other information that is required. It is delightful to those of us who know the lives of town workers, the stress and pain of heat, and crowds and noise, to think that the Tube will soon bring swiftly and cheaply hundreds and thousands of them out to the clean air and verdant loveliness which the Heath affords. But unless the eighty acres of the neighbouring fields are secured, the large numbers will destroy the beauty they go to seek, and the streets of small houses that it is proposed to build will spoil the far-famed view, and defile the bright high air with smoke.

It is not as one who sometimes rests in a cottage in Hampstead, but as one who often works in Whitechapel, and knows the conditions of the thousands of people who live in places where flowers will not grow, that I tell of this need to the public-spirited of your readers who care to give to impersonal causes.

HENRIETTA O. BARNETT,

Hon. Sec. of the Hampstead Heath Extension Council.

BOOKS.

The Wild Garden.—We welcome a new edition of this excellent book, which may be accepted as the standard authority on the delightful subject of gardening in the wild. In the preface to the new edition the author writes: "The best thing I have learnt from my own wild gardening is that we may grow without care many lovely early bulbs in the turf of meadows, i.e., fields mown for hay, without in the least interfering with the use of the fields. The blue Anemones, Crocus, Snowdrops, Narcissus, Snowflakes, Grape Hyacinths, Dog's-tooth Violets, Stars of Bethlehem, Fritillaries, St. Bruno's Lily, Snow-glories, wild Hyacinths, Scilla, and wild Tulips, best fitted for this early gardening in the meadow turf, wither before the hay is ready for

* "The Wild Garden," by William Robinson (Murray). Price 10s. 6d. New edition.



ODONTOGLOSSUM CRISPUM GRAIREANUM. (Natural size.)

the scythe, and we do not find a trace of the leaves of many of them at hay time. Many of the plants of the mountains of central Europe and also of those of what we call the south and east, such as those of Greece and Asia Minor, bloom with me earlier than our own field or woodland flowers. Our feebler sun awakes them in the mowless fields, and so we enjoy many spring flowers while our grass is brown. And if they come so early in the cool and high 'forest range' in Sussex, they will be no less early in the warm soils, as in Surrey or in the many valley soils, sheltered as they often are by groves and banks of evergreens. As nearly every country house is set in meadows, it is easy to see what a gain this is, not only for its beauty but because it lets us make an end of the repeated digging up of the flower for the sake of a few annual and other spring flowers—themselves to be removed just in the loveliest summer days." This is the keynote to the book, which describes the way the finer native plants from other lands should be introduced in the wild and rougher places in the woodland, in the home grounds, and the many lovely things that may be grouped and naturalised in ditch, lane, copse, hedgerow, brookside, water, and bog. It tells of the beauty of grassy woodland walk and paths, and gives helpful lists of those things which the planter should take as his guide. Another grateful feature of the book is that it is illustrated with wood illustrations, made chiefly from drawings by Alfred Parsons. This edition of the "Wild Garden" is the outcome of the author's ripe experience. Twenty years have gone by since the first edition appeared, and throughout that time he has experimented in the home grounds and woodland, with the result that the present volume is as complete and useful as a long experience can make it. The chapter "Some Results," by Mr. William Brockbank, is full of suggestions, and appeared originally in THE GARDEN. That devoted to "Hardy Exotic Flowering Plants for the Wild Garden" is one of the most helpful in the book, and is a guide to the soils required by the various things described. Here is a note about Mulgedium Plumieri, which was sent a few days ago for our table: "A plant of distinct port, with purplish blue blossoms. Till recently it was generally seen in botanic gardens only, but it has many merits as a wild garden plant and for groups in quiet green corners of pleasure grounds or shrubberies. It does best in rather rich ground, and in such will pay all who plant it, being a hardy and long-lived perennial. The foliage is sometimes over a yard long, and the flower-stems over 6 feet high in good soil."

Addenda to Sanders' Orchid Guide, 1901-3.—It is necessary in these days when hybrids are being raised with surprising freedom for supplements to be issued with a standard guide at certain intervals. We therefore

welcome this addenda to Sanders' excellent work. The new tables of hybrids consist of those crosses raised and recorded since the guide appeared, and every care has been taken to verify the records. We agree with the authors when they state that "we believe these and the preceding tables will be found to be an essential guide in every Orchid collection, particularly as a glance at them will help to avoid the too prevalent duplication and synonymy existing in the present nomenclature of hybrids." It is interesting to notice that *Cypripediums* and *Cattleyas* fill the greatest number of pages.

ODONTOGLOSSUM CRISPUM GRAIREANUM.

THERE have been shown lately many finely spotted forms of *Odontoglossum crispum*, and although a few were quite distinct in form of flower, colour, size, shape, and disposition of the markings, many very closely resembled each other. The flower change from the plethora of those whose only claim to notoriety lay in the heavy blotches and spots with which they were marked. Instead of these characters, the petals and sepals are suffused all over with a delightful blending of red, brown, orange, and purple, the first-named colour prevailing towards the centre of the flower. Sepals, petals, and lip have white margins, and splashes of white show here and there through the ground colouring. Norman C. Cookson, Esq. (gardener, Mr. H. J. Chapman), Oakwood, Wylam-on-Tyne, exhibited this new *Odontoglossum* at the Temple show on May 26, 27, 28, and it then received a first-class certificate.

AGAPANTHUS INSIGNIS.

RECENTLY flowering in the nursery of Messrs. William Bull and Sons of Chelsea was this striking *Agapanthus*. Though assigned specific rank it is more than probable that it will be classed by botanists as a variety of the old and popular *Agapanthus umbellatus*. However, from the ordinary form it differs in several well-marked particulars. The flower scape of the specimen shown was much taller than is usually seen, while the foliage is also distinct, the basal portion of the leaf being marked in the centre with a creamy tint. The most striking feature of all is, however, the head of blossoms, for the individual flowers are far more numerous than in any other form, added to which they are borne on longer pedicels, so that the

first expanded blooms droop, and, the centre being filled by the later ones, the entire inflorescence is more spherical than in the type. The colour is a shade of pale lavender, but if the plant were grown outdoors the tint probably would be somewhat deeper. This *Agapanthus* was introduced from South Africa.

SOCIETIES.

THE NATIONAL ROSE SOCIETY AT GLASGOW.

THE visit of the National Rose Society to Glasgow on the 15th inst. is the second occasion the Rosarians of the south have crossed the Border, they having visited Edinburgh many years ago when, in connexion with the summer exhibition of the Royal Caledonian Society, a National Rose Show was held in the spacious Waverley Market. The St. Andrew's Hall, in which the present exhibition was held, though the finest building of the kind in the North is, mainly on account of deficiency of light, ill adapted to flower showing, at least one-fifth of the blooms on Wednesday week being set in a kind of twilight, and as the weather was typical of Glasgow—"aye raining"—not one tiny blink of sunshine appeared to lighten the gloom. However, the Roses themselves were in such glorious form that they compensated for any drawbacks in connexion with their surroundings. Those competent to judge declared this to be the Rose show of the year, and quite equal to any previously held under the auspices of the National Rose Society. It is unfortunate that the backwardness of Scottish Roses prevented such champions as Messrs. Croll, of Dundee, and Messrs. Cooker, Aberdeen, from showing, the only firm present with flowers being Mr. Robertson, Hellensburgh. The officials of the West of Scotland Rosarians Society, in conjunction with which association the National Rose Society held this provincial show, were, it is only courteous to say, most attentive in giving every facility for reporting. The arrangements on the whole were most commendable.

JUBILEE TROPHY.

Two handsome cups, with a not extravagantly large bonus in cash, one for nurserymen and the other for amateurs,



MESSRS BULL'S NEW AGAPANTHUS.

were productive of the finest blooms in the show. For the former the prize was for thirty-six blooms, distinct varieties, there being nine entries. Messrs. Harkness and Co., Hitchin, was easily first with a superb set of blooms, large, fresh, and in perfect colour. The varieties comprised Mildred Grant, Gustave Piganeau, Bessie Brown (extra fine), Ulrich Brunner, Papa Lambert (very fine), the same remark to Gladys Harkness, Her Majesty, and Marie Radey; Marie Baumann, Mme. Victor Verdier, Lady Mary Beauchamp (a lovely bloom), Mme. Charles Crapet, A. K. Williams, Maman Cochet (extra), Comtesse de Ludre, Kaiserin A. Victoria, Mme. Cusin, Souvenir d'Elise, Prince Arthur (a fine bloom), White Maman Cochet, Fisher Holmes, Ellen Drew (lovely in colour), Mrs. Cocker, Louis Van Houtte, Mrs. John Laing, Duke of Edinburgh, Killarney (lovely), Duke of Wellington, Marchioness of Downshire, Jean Souper, Mrs. Edward Mawley, Victor Hugo (in wonderful colour), Niphotos, and Ulster. There was some difficulty in determining to whom the second prize should be awarded, the fight between Messrs. B. R. Cant and Sons, The Old Rose Gardens, Colchester, and Messrs. A. Dickson and Sons, Limited, Newtownards, being keen and close. Finally the Irish Roses were declared the less good, the noted Colchester firm receiving the second award, and Messrs. Dickson third. The former staged Her Majesty, A. K. Williams, Maman Cochet, G. Piganeau, Caroline Testout, Mme. Marie Rodocanachi, Mildred Grant, Lady Moyra Beauchamp, Comtesse de Nadallac, Papa Lambert, Ulrich Brunner, Ben Cant (silver medal), White Maman Cochet, Abel Carrière, Mrs. J. Laing, Marie Baumann, Frau Karl Druschki, F. Michelson, Maréchal Niel, Duke of Edinburgh, Mme. Cusin, Dupuy Jamin, Bessie Brown, Duchess of Portland, Fisher Holmes, Jean Ducher, Duchess of Morny, Mrs. Cocker, Black Prince, Marchioness of Londonderry, Maurice Bernardin, Medea, Reynolds Hole, Killarney, and Horace Vernet.

The amateurs' cup was offered for twenty-four blooms, distinct varieties, Mr. E. B. Lindell, Bearton, Hitchin, securing the coveted prize with beautifully fresh and well-coloured blooms of the following: Mildred Grant, Prince Arthur, Her Majesty, Comte de Raimbaud, Duchess of Portland, Mme. Cusin, Marchioness of Londonderry, Dupuy Jamin, Charles Lefebvre, Frau Karl Druschki, A. K. Williams, Comtesse de Nadallac, Horace Pernet, Muriel Grahame, Victor Hugo (a grand bloom to which the silver medal was awarded), Her Majesty, Robert Scott (extra fine), Alfred Colomb, White Maman Cochet (extra), Marie Baumann, Maman Cochet, G. Piganeau, Bessie Brown, and Mrs. J. Laing. Mr. Conway Jones, Gloucester, secured second prize, and Mr. Henry Machin, Gateford Hill, Worktop, third.

NURSERYMEN.

Rose growers are like other classes of the community, intensely human, and in the class for forty-eight blooms, distinct varieties, we find an illustration of the trait in the fact that Messrs. Dickson and Sons, Limited, Newtownards, reserved their best blooms for this class and beat Messrs. Harkness, who placed their choicest in the cup class, which, as already noted, they had no difficulty in securing. Messrs. A. Dickson's premier, forty-eight blooms, distinct varieties, were not only choice, but among them were many names not to be found in other collections. The sorts were M. Verdier, Frau Karl Druschki, Tom Wood, Mme. Cadeau Ramey, Franchon Michelot, Lady Ciammorris, Duchess of Morny, Mrs. E. C. Sharnan Crawford, Xavier Olibo, Mrs. David McKie (a cream tinted bloom to which a gold medal was awarded), Captain Hayward, Her Majesty, Marie Baumann, Florence Pemberton, Alphonse Souper, Bessie Brown, Helen Keller, Susanne Marie Rodocanachi, Marchioness Dufferin, Minister Cream Seedling, G. Piganeau, White Maman Cochet, Comte de Raimbaud, Alice Graham, Louis van Houtte, Alice Lindell, Horace Vernet, Marie Radey, Robert Scott (extra), Gladys Harkness, Duchess of Portland, Marquise Jeanne de la Chataigneraie, Earl of Dufferin, Grand, Mildred Grant, Ulster, Caroline Testout, Ulrich Brunner, Mme. Jules Grangerveine, Heinrich Schnitzels, Edouard Strassheim, Duke of Fife, Mrs. Edward Mawley, Annie Wood, William Shean (deep plush seedling), and Helen Guillot; second, Messrs. Harkness and Co., A. K. Williams, Robert Scott, Beauty of Waltham, Victor Hugo, and Susanne Marie Rodocanachi being especially noteworthy; Messrs. D. Prior and Sons, Colchester, were third.

For twenty-four trebles, Messrs. R. Harkness and Co. secured first with a magnificent lot of blooms of lovely colouring. They comprised Edward Piganeau, Mme. Cadeau Ramey, Duchess of Morny, Caroline Testout, Marie Baumann, Mildred Grant, Gladys Harkness, Alfred Colomb, Lady M. Beauchamp, Mme. Crapet, Her Majesty, Ethel Brownlow, Fisher Holmes, Frau Karl Druschki, Mme. Cusin, and White Maman Cochet; Messrs. A. Dickson and Sons, Limited, were a good second with fine blooms; and the Hereford Nursery Company third.

For thirty-six blooms, distinct varieties, Messrs. Townsend and Son, Worcester, were first, staging good examples of Ulster (grand bloom), Mrs. J. Laing, Caroline Testout, Helen Keller, Her Majesty, Bessie Brown, A. K. Williams, White Lady, Susanne Marie Rodocanachi, Frau Karl Druschki, Marquis of Lansdowne, G. Piganeau, Mrs. W. J. Grant, Marchioness of Londonderry, Catherine Mermet, Captain Hayward, Jeannie Dickson, Victor Verdier, Marchioness of Downshire, Duke of Wellington, Crown Prince, Kaiserin A. Victoria, Beauty of Waltham, Robert Duncan, White Maman Cochet, La France de '89, Victor Hugo, Clio, Killarney, Magna Charta, Maman Cochet, Reynolds Hole, and Ulrich Brunner; Messrs. J. Jeffries and Son, Cirencester, were a capital second, and Mr. David Robertson, Helensburgh, third.

For sixteen trebles, Messrs. Townsend and Son were again first; Mr. George Prince, Longworth, second, with among other lovely examples of Comtesse de Nadallac, Muriel Grahame, Ernest Metz, E. V. Hermance, Bessie Brown, The Bride, Mrs. B. O. Sharnan Crawford, Mrs. E. Mawley, Bridesmaid, and Mildred Grant; Messrs. John Jeffries and Son, Cirencester, were third.

For eighteen blooms, distinct varieties, Teas and Noisettes, Mr. George Prince, Longworth, was awarded first, staging

grand and wonderfully coloured blooms. The varieties were White Maman Cochet, Ernest Metz, Comtesse de Nadallac, La Boule d'Or, Innocente Pirola, Maman Cochet, Mrs. E. Mawley, Medea (very fine), Bridesmaid, Souvenir de S. A. Prince, Souvenir d'un Ami, Golden Gate, Cornelia Koch, Muriel Grahame, Maréchal Niel, Miss Edith Brownlow, The Bride, and E. V. Hermance. Messrs. Frank Cant and Co., Colchester, were second—Mrs. R. Mawley, Francisca Kruger, and Etiole de Lyon being noteworthy blooms; third, Messrs. D. Prior and Sons, Colchester.

For twelve blooms, Teas and Noisettes, there were nine entries. Messrs. Townsend and Sons, Lower Broadheath, Worcester, being first; second, Mr. Hugh Dickson, Belfast; third, Mr. John Mattock, New Headington, Oxford.

OPEN.

Twelve blooms of new Roses, distinct varieties: First, Messrs. A. Dickson and Sons, Limited; second, Messrs. F. Cant and Co.; third, B. R. Cant and Sons.

Twelve white or yellow Roses (twelve entries): First, Messrs. A. Dickson and Sons, Limited, with grand Duchesse of Portland; second, Mr. Hugh Dickson, Belfast, with lovely blooms of Bessie Brown; third, Mr. George Prince.

Twelve blooms, light pink or rose coloured varieties: First, Mr. George Prince, with grand blooms of Mildred Grant; second, Messrs. F. Cant and Co., with same variety; third, Mr. Hugh Dickson, with Ulster.

Twelve blooms, light or dark crimson varieties: First, Messrs. B. R. Cant and Sons, with A. K. Williams; second, Messrs. Townsend and Son, with Roseiste Jacobs; third, Messrs. A. Dickson and Sons, Limited.

Twelve varieties, fives in vases. These, like the foregoing, were badly placed, but some grand flowers were shown. Mr. George Prince was first, with unnamed varieties; Messrs. A. Dickson and Sons, Limited, second; and Messrs. Townsend a close third.

The next class was for new seedling Roses, or distinct sports, three trusses, either not yet in commerce, or not distributed earlier than November, 1902. Mr. Hugh Dickson, Belfast, gold medal for Hugh Dickson, H.P.; card of commendation for J. B. Clark, H.T. Messrs. A. Dickson and Sons, Limited, Newtownards, gold medal for Mrs. David McKie; card of commendation for Dean Hole and Duchess of Westminster. Messrs. B. R. Cant and Sons, Colchester, gold medal for climbing Polyantha Blush Rambler.

For twelve Teas and Noisettes, distinct varieties (trebles), a grand class, Mr. George Prince was first; second, Messrs. F. Cant and Co.; third, Messrs. A. Dickson and Sons, Limited.

For eighteen distinct, garden, or decorative varieties, not less than three trusses of each (space 8 feet by 3 feet), there was only a slight competition. The first prize was awarded to Mr. John Mattock, New Headington, Oxford; Messrs. F. Cant and Co., second; and Messrs. Paul and Son, Cheshunt, third.

AMATEURS.

The trophy prizes have already been noted.

For thirty-six blooms, distinct varieties, the Rev. J. H. Pemberton, Havering-atte-Bower, was first, showing Tennyson, White Maman Cochet, Her Majesty, Mrs. R. F. Sharnan Crawford, Mrs. Mawley, Caroline Testout, Papa Lambert, and Frau Karl Druschki; second, Mr. E. B. Lindell, with very fresh blooms; third, Mr. Conway Jones, Gloucester.

For eight distinct varieties, three of each, Mr. E. B. Lindell stood first with a grand lot; second, Mr. H. Machin; third, Mr. Conway Jones.

For nine blooms, Teas and Noisettes excluded, Mr. R. Park, Bedale, was first; Mr. W. Boyes, 30, Duffield Road, Derby, second; and the Rev. J. H. Pemberton third.

GROWERS OF LESS THAN 2,000 ROSES.

The three immediately succeeding classes were confined to growers of less than 2,000 Roses.

For eighteen distinct varieties: First, Mr. R. Foley Hobbs; second, Mr. Edward Mawley; third, Mr. Whittle.

For six trebles: First, Mr. R. Foley Hobbs; second, Mr. Mahlon Whittle; third, Mr. E. Mawley.

For six blooms, Teas and Noisettes excluded: First, Mr. R. Foley Jones; second, Mr. Mawley.

OPEN TO GROWERS OF LESS THAN 1,000 PLANTS.

Twelve distinct varieties: First, Mr. R. L. Garnett, Myreside, Lancs; second, Mr. G. Moules, Hitchin; third, Mr. A. Gray, Jun., Helensburgh.

OPEN TO GROWERS OF LESS THAN 500 VARIETIES.

Six blooms, distinct varieties: First, Mr. H. Adamson, Bedale; second, Mr. W. Upton, Leicester; third, Nina Dickson, Newby Bridge.

OPEN TO ALL AMATEURS.

Six blooms of new Roses, distinct varieties: First, Mr. Conway Jones, with Alice Lindell, Robert Scott, Gladys Harkness, Mildred Grant, Lady Moyra Beauchamp, and Duchess of Portland; second, Mr. Mahlon Whittle; third, the Rev. J. H. Pemberton.

Twelve blooms, Teas and Noisettes: First, the Rev. F. R. Burnside, Great Stanbridge Rectory, Essex, with White Maman Cochet (also awarded silver medal for best bloom), Comtesse de Nadallac, La Boule d'Or, Maman Cochet, Edith Brownlow, The Bride, Mme. Cusin, Muriel Grahame, Golden Gate, Catherine Mermet, Medea, and Ernest Metz; second, Mr. Conway Jones. For nine blooms, the names for first and second are the same, Mr. Lindell securing third.

OPEN TO GROWERS OF LESS THAN 500 PLANTS.

For nine blooms, Teas and Noisettes: First, Mr. F. Foley Hobbs; second, Mr. M. Whittle.

OPEN TO GROWERS OF LESS THAN 200 PLANTS.

Six distinct varieties, Teas and Noisettes: First, Mr. W. Upton; second, Rev. R. I. Langtree, Grange-over-Sands; third, Mr. H. Adamson.

EXTRA CLASS OPEN TO ALL AMATEURS.

Six trebles, Teas and Noisettes: First, Rev. F. R. Burnside, with fine examples.

Twelve distinct varieties, garden or decorative Roses

(space occupied limited to 6 feet by 3 feet): Equal first, Rev. J. H. Pemberton and Mr. Edward Mawley.

CLASSES CONFINED TO LOCAL GROWERS.

Eighteen blooms, distinct varieties: First, Mr. Bonnet, Helensburgh; second, Mr. Russell, Newton Mearns; third, Mr. MacFarquhar, Helensburgh.

Twelve blooms, distinct varieties: First and silver medal, Mr. Black, Kingussie, Fife; second, Mr. Whyte, Helensburgh; third, Mr. Smith, Corrirop.

Six blooms, distinct varieties: First, Mr. Russell; second, Mr. W. K. Gair.

In addition to the silver medal Roses already mentioned Messrs. D. Prior and Sons secured one for White Maman Cochet; Mr. E. B. Lindell another for a glorious bloom of Victor Hugo. The King's Acre Nursery Company, Hereford, and Mr. Conway Jones medals for Mildred Grant.

Messrs. B. R. Cant, Colchester, staged masses of a new Polyantha, almost single, called Blush Rambler, and among miscellaneous exhibits may be mentioned a group of Carnations from Mr. Matthew Campbell, High Blantyre, and an extensive assortment of beautiful Fancies, Violas, Sweet Peas, and Pelargoniums, from Messrs. Dobble and Co., Rothsay.

FORM BY.

THIS successful exhibition was again held, by the kind permission of Mr. F. A. Rockliff in a field adjoining Brian Hey on the 15th inst., and it is pleasing to report in this trying season an undoubted improvement in all departments in the exhibits staged by gardeners, amateurs, and cottagers.

ROSES.

as usual, were the leading feature, and were not only good in quality but in greater quantity than hitherto. Mr. R. Kennedy, as usual, occupied a foremost position by securing three firsts, having beautiful blooms of La France, A. K. Williams, Mrs. Sharnan Crawford, Captain Hayward, Killarney, Bridesmaid, Maman Cochet, Medea, Mme. Cusin, and others. Mr. Luther Watts secured two firsts, and other exhibitors that led in the several classes were Miss M. A. Rimmer, Messrs. G. Lunt, T. Carlyle, T. Pugh, D. Lever, and J. H. Page. Mr. Carlyle gained the National Rose Society's silver medal for a medium-sized but charming bloom of Maman Cochet. Coming closely on the Rose is the favourite

SWEET PEA.

which is enhanced in interest by the silver bowl presented by Mr. H. Middlehurst. This brought about a dozen competitors. Mr. Dodd, Jun., last year's winner, again occupying the premier position with well cultivated flowers artistically arranged. Very good were Salopian, Duke of Westminster, Miss Willmott, Emily Eckford, Gorgeous, Lady Gird Hamilton, &c.

BEGONIAS.

were well staged by Mr. Luther Watts, who won for three single varieties and three doubles. Gloxinias were also pleasing feature supported generally with better grown stove and greenhouse plants, Fuchsias, Geraniums, and Ferns being especially good. Seven ladies made an excellent show in table decorations, bouquets, sprays, &c., showing taste and original designs.

Mr. W. Mackellar secured the leading award for a collection of good vegetables, the cottagers being of high merit in this department.

Amongst the numerous exhibits not for competition which gained an award of merit were Messrs. A. Dickson and Sons, Newtownards, for fine Bessie Brown and Mildred Grant Roses, about four dozen of each variety, and collection of well-grown Sweet Peas and herbaceous cut flowers: Mr. R. Wright, Ormakirk, Fancies and Violas; Mr. E. Middlehurst, Liverpool, choice collection of Sweet Peas; Messrs. T. Davis and Co., Wavertree, Liliums, Petunias, Lily of the Valley, Gladioli, and good vegetables; Messrs. Caldwell, Roses, Sweet Peas, and herbaceous cut flowers. Mr. T. Pugh, secretary, and Mr. E. H. Bushell, treasurer, ably carried out their respective duties.

HORTICULTURAL CLUB.

EXCURSION TO WINDSOR.

THE annual excursion of members of this club and their friends took place on Thursday, the 16th inst., and despite the somewhat unfavourable state of the weather was greatly enjoyed. The party, about eighty in number, met at Paddington terminus at 10 a.m., and proceeded in two saloon carriages to Windsor, where, thanks to the invaluable aid and management of Mr. Harry Veltch, who kindly undertook the arrangements, and the great courtesy of Mr. Nutt, the architect, Mr. Mackellar, the head gardener, and Mr. Tait, the farm steward, the castle, the grounds, and the splendid collection of cattle were all inspected in turn under the best of auspices. The club, thanks to special permission accorded by His Majesty, enjoyed the unusual privilege of visiting the private gardens, as well as those more generally open to inspection, and it need hardly be said were delighted, not only by their beautiful design and arrangement, but also by the perfection of the order in which they were kept. So great indeed was the pleasure that the fortunately transient showers and generally dull and threatening weather formed practically no bar to enjoyment. On arriving at Windsor some of the party decided to drive through and around the splendid park; the major number, however, deterred by the threatened downpour, elected to visit the interior of the castle, and although the state apartments were not available for inspection, they went through St. George's Chapel, the Memorial Chapel, and other adjuncts of the castle, which was greatly enhanced by the presence of Mr. Nutt, who very kindly acted as cicerone to the party, pointing out with the finger of an expert the special points of architectural and historical interest. To those who drove round the park the beauty of the scene was heightened rather than otherwise by the freshness imparted by the showers, the atmospheric effects on the long vistas of the avenues being charming. At one o'clock the

party lunched at Messrs. Layton's, and subsequently were conducted over the gardens by Mr. Mackellar, passing through the private ones aforesaid, and thence to the dairy, the kennels, and farm, finally reaching Frogmore. A capital tea had been arranged by special permission in one of the Royal conservatories, after which a couple of hours were spent in visiting the kitchen and other gardens, and eventually, under Mr. Tait's kind supervision, the pick of the prize cattle were paraded for the visitors' benefit, the party then being driven back to Windsor to dinner at Messrs. Layton's.

Mr. Harry Veitch presided, and after the toast of "The King" had been duly and gratefully honoured, the health of Messrs. Nutt, Mackellar, and Tait, the two latter gentlemen being present, was proposed and drunk with enthusiastic recognition of their kind contribution to the enjoyment of the day, the function closing after a few words from Mr. Hunt, a visitor from the Antipodes, with a similarly well-deserved recognition of Mr. Harry Veitch's highly successful efforts to make it a red-letter day in the annals of the club. The party then broke up, returning to London as they came, and unanimously declaring that had the weather been better they could not possibly have enjoyed themselves more.

CROYDON HORTICULTURAL SOCIETY.

TOMATO GROWING.

THAT most popular fruit the Tomato was the subject of a paper given before the members of this society at their rooms, George Street, on the 14th inst., and the mode of culture recommended by Mr. F. Oxtoby, Cooombe Lodge Gardens, found hearty appreciation from all present. Commencing with the early introduction of Tomatoes to this country, Mr. Oxtoby remarked it was only of recent years that this excellent has gained such prominence, and its acquisition to our tables all the year round as a luscious fruit makes the demand ever increasing. For cultivation in the open ground, he advised sowing the seed early in March in well-drained pots or pans, and placed in any warm house. When the seedlings appear remove to near the glass, shading slightly until the seed leaves are fully developed, then give full exposure to prevent spindly growth. After the second pair of leaves are formed, pot off singly into 3½-inch pots, using any good loamy soil, and slightly shade for a day or two. Keep them well up to the glass and do not overwater; water carefully, never allowing the soil to get dry. They should then have made strong growth, and will require shifting into 6½-inch pots, using loam, a little decayed manure, some burnt refuse, and a little soot; also to each barrow load of soil mix about a 5-inch pot of artificial manure. The soil should be moist, and heavy watering for a few days should be withheld; gradually harden off when well established, and about the end of May or beginning of June they will be ready for planting out, that is, providing the weather is favourable. The position outside for their reception should be very sunny, and the plants should be 2 feet to 3 feet apart. Put a stake to each plant and remove all side shoots as they appear. Pinch the top of the plant out above the third bunch of flowers. Manure water given twice a week when the fruits are swelling will help them considerably. Remove the fruits as they begin to ripen, for they will finish just as well laid on a warm shelf covered with a piece of paper. For culture in the greenhouse, where they can be grown all the year round, he recommended sowing the seed in September for April supply of fruit. After raising the seedlings pot on gradually into increasing sized pots until the 10-inch pot is reached early in the new year. The soil required for these is good loam and half-decayed horse manure, place the pots on the front stage, and train the cordons or stems at a distance of 9 inches to 12 inches under the glass. The removal of the side shoots, as recommended for outside cultivation, should be adopted, and the top of the plant pinched out when the required height is reached. When in bloom the stems should be slightly tapped periodically to help fertilisation, and care should be taken not to over-water them. Keep the temperature at 60°, and ventilate at all favourable opportunities. Disease is very prevalent during winter growth, and is prevented by constant attention to ventilation and temperature of the greenhouse, keeping the atmosphere buoyant at all times. Successional sowings should be made in January, March, and May for later supplies. The lecturer gave a few interesting comments on the diseases of the Tomato, and many excellent points were learned as to their prevention and cure. Following a hearty discussion of the paper, a unanimous vote of thanks was accorded Mr. Oxtoby for his extremely practical and well delivered lecture. Mr. A. Masien will give the next paper, "Summer Pruning," on August 18.

ROYAL HORTICULTURAL SOCIETY.

SCIENTIFIC COMMITTEE, JULY 7.

PRESENT: Dr. M. C. Cooke (in the chair), Messrs. Holmes, Gordon, Massee, Saunders, Professor Boulger, Reva. W. Wilks and G. Henslow (hon. sec.).

Apple trees and insects.—Mr. Saunders reports as follows upon specimens received from Mr. Campbell, of Ardross, Leeds: "The Apple trees are attacked by the caterpillars of two different moths, but the habits of both kinds are very similar. The green caterpillars are those of the winter moth (*Chematobia brumata*), the brown and yellow ones of the great winter moth (*Hybernia defoliaria*); both belong to the family Geometridae, and are two of the most destructive pests to Apple trees. The females of both kinds are wingless, or have only the rudiments of wings, so that they are incapable of flight. As the chrysalides are formed in the ground when the moths emerge, it is evident that they must climb up the trees if they wish to lay their eggs, as is their custom, near the buds. To prevent this is one of the most important things, if it is desired to protect the trees from attacks by the caterpillars. The simplest way of effecting this is to fasten greasy bands round the stems, which the caterpillars are unable to cross. As this might injure the tree if the grease came in contact with it, a strip of grease-

proof paper, 7 inches or 8 inches wide, and long enough to overlap an inch or more, should be tied round the trees, say 3 feet from the ground, and fastened top and bottom with bast matting or soft string that will not cut the paper. Over this should be tied a strip of calico about the same width, also tied top and bottom; this must be well smeared with cat-grease, soft soap, and train-oil mixed, so that a soft, sticky compound is formed in which the moths will be caught. These bands should be put into position as early as the middle of October, and kept in working order until well after Christmas. To do this the bands should be re-greased every now and then, or whenever it is found that the grease is losing its stickiness, or, as is sometimes the case, clogged up with the number of moths caught in it. Notwithstanding these precautions, some of the females may find their way into the young shoots. Some are no doubt carried by the males (who fly well) when coupled, so that it is useful, when it can be carried out, to spray the trees before the buds show any signs of opening with a caustic alkali wash, made by dissolving 1 lb. of caustic soda in half a bucket of water, add ½ lb. of pearlash, and stir until all is dissolved, then add enough soft water to make 10 gallons, and finally stir in 1 lb. of soft soap which has been melted in a little hot water. This mixture is very caustic, and must not be allowed to touch the skin or clothes, and if it does it should be wiped off as soon as possible. A still day should be chosen, so that the wind will not blow it on to the operators; this spraying should kill the eggs if any are laid on the tree. To destroy the caterpillars the trees should be sprayed as soon as the fruit has set with paraffin emulsion, or ½ lb. of Paris green and ½ lb. of lime mixed in 50 gallons of water. This mixture must be kept well stirred, as the Paris green is very heavy, and soon sinks to the bottom, and in this case some of the mixture will be too weak to kill the caterpillars, and the rest so strong that the foliage will be injured."

Lilac shoots and frost.—Mr. Massee showed a curious and important effect of frost on the leaves of the Lilac. The apex was frost-bitten, then, after a thaw, the leaf became attacked by *Botrytis cinerea*, which travelled down the region of the midrib and petiole, till it attacked the terminal bud between the leaves. As thousands of flower buds were thus destroyed in consequence of the late frost, such represented great pecuniary loss to the growers for the flower markets.

FLORAL COMMITTEE.

CHISWICK MEETING, JULY 15.

PRESENT: H. B. May, Esq. (chairman), Messrs. A. Ferry, C. Jeffries, R. Dean, W. J. James, W. Cuthbertson, W. F. Thompson, H. J. Jones, J. W. Barr, C. E. Fielder, J. F. McLeod, and C. Dixon.

The object of the above meeting was to examine Poppies of which the under-named were then regarded as the best. The following received the award of merit:—

Poppy Cardinal (white).—A vigorous and sturdy variety, about 1½ feet high, with handsome well expanded snow-white flowers, very beautiful, and approaching to 4 inches diameter. From Messrs. Dobbie and Co., Rothsay.

P. Maphitis.—This is also a sturdy, vigorous growing sort, of nearly erect growth, the large handsome single flowers some 4½ inches across, with deeply notched petals, being of a deep crimson hue, and blotched at the base with a darker shade. From Messrs. Barr and Sons, Covent Garden, W.C.

P. glaucum.—A very showy and neat growing Poppy, about 15 inches high, and well adapted for a variety of uses within the limits of the garden. The habit of the plant is branching, the handsome crimson flowers blotched at the base with deep crimson. From Messrs. Dobbie and Co., Rothsay, Messrs. James Veitch and Sons, Limited, and Messrs. Barr and Sons, Covent Garden.

The following were highly commended (* * *):

Poppy White Colossal.—An erect growing plant, 2 feet high or more, with double white narrow petalled flowers. The latter are fully 5 inches across. From Messrs. Barr and Sons, Covent Garden.

P. Murelli's pl. American Flag.—So called probably by reason of the large double white flowers having stripes of purple; the margins of the petals are touched with a similar shade. From Messrs. Dobbie and Co., Rothsay.

P. Blue Cardinal Victoria.—A pale pink double-flowered variety, erect in growth, and about 18 inches high; the growth is sturdy and vigorous. From Messrs. Dobbie and Co., Rothsay.

P. armarium.—A slender plant 15 inches high. Flowers scarlet with a heavy blotch of black at the base of each petal. From Messrs. Dobbie and Co., Rothsay.

FRUIT AND VEGETABLE COMMITTEE.

CHISWICK MEETING, JULY 14.

A second meeting of the fruit and vegetable committee was held at Chiswick on July 14.

PRESENT: Mr. G. Bunyard (chairman), Messrs. Owen Thomas, J. Jacques, G. Wythes, W. Bates, H. Markham, S. Mortimer, H. Ealing, G. Kelf, and A. Dean. Prior to commencing business it was unanimously agreed that Mr. S. T. Wright be requested to send on behalf of the committee a sincere expression of sympathy with Mr. W. Marshall in his illness. Mr. Bunyard introduced a remarkably fine sample of the new Givon's Late Strawberry, which received a first-class certificate a year or two since. It was reported as being remarkably fine and a splendid cropper at Maidstone. The fruits were of first-class quality. The whole of the Peas grown for trial other than the few early ones dealt with at the first meeting, were then examined, and ultimately first-class certificates were awarded to Peerless (Sutton and Sons), a very fine well-flavoured 3 feet Marrow, and a capital cropper, and to Improved Monarch (J. Sharp and Co.), a very fine variety 7 feet in height, pods large, and very abundantly produced.

Awards of merit were granted to Coleman's Favourite, 3 feet, very fine pods; Webb's Kaiser, similar height, pods long, green, and abundant; Rivenhall Wonder (Cooper, Taber and Co.), 20 inches in height and a remarkable

cropper; Aristocrat (Sharpe and Co.), 4 feet, heavy cropper and of fine quality; Sherwood Forest (Hurst and Son), a very fine 7 feet Pea and a great cropper; Progression (James Veitch and Sons), a capital 6 feet Pea of great excellence; and to Feltham Gem (James Veitch and Sons), 2 feet in height, and late, pods green, crop heavy, an excellent dwarf variety. Some Cabbages, spring-planted, were seen, but the stocks were both coarse and uneven. The Vegetable Marrow plants having been mulched with manure are now promising well. Potatoes so far look very well, and the dwarf Kidney Beans will soon be ready for examination.

DRILL HALL MEETING.

ORCHID COMMITTEE.

PRESENT: Harry J. Veitch, Esq. (chairman), Messrs. James O'Brien, de B. Crawshaw, Walter Cobb, Jas. Douglas, H. T. Pitt, T. W. Bond, W. H. Young, W. Boxall, J. Wilson Potter, H. Little, H. Ballantine, H. M. Pollett, M. Gleeson, and E. Hill.

M. S. Cooke, Esq., Tankerville, Kingston Hill, Surrey (gardener, Mr. W. Buckell), showed *Oncotoglossum crispum*, Cooke's variety.

Messrs. Thomas Rochford and Sons, Limited, Broxbourne, Herts, showed *Cattleya gaskelliana* and *Cattleya Mendellii* var. King Edward VII., the latter with pure white sepals and petals and pale yellow throat.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, showed *Cattleya Mossiae* var. Wagneri, C. Harrisoni alba, *Laelia majalis*, *Renanthra Storlei*, with rich crimson and brown flowers, and *Eulophiella peetersiana*.

In Messrs. Sander and Sons' group of Orchids were *Laelio-Cattleya Martinetii*, L.-C. Blechleyensis, *Cattleya Mossiae* coleata (very attractive), *Eria convallarioides*, *Cypripedium barbatrothochlidianum*, and *Cirrhaa warreana* (botanical certificate). Silver Flora medal.

NEW ORCHIDS.

A first-class certificate was given to *Laelio-Cattleya Blechleyensis Illuminata*.—*Cattleya gigas* and *Laelia tenebrosa* are the parents of this hybrid. It is a great improvement upon the typical hybrid (L. C. Blechleyensis); it is much larger, and the flowers are more richly coloured. Sepals and petals are rosy purple tinged with buff, while the lip is rich purple. From Messrs. Sander and Sons, St. Albans.

An award of merit was given to

Cypripedium x Ullor.—C. lawrencianum and C. sandersonianum are the parents of this new *Cypripedium*. The long drooping petals are dull green, spotted with brown, the dorsal sepal is a brighter green lined with purple-brown, and the lip is brown. Shown by Reginald Young, Esq.

FRUIT AND VEGETABLE COMMITTEE.

PRESENT: Messrs. George Bunyard (chairman), J. Cheal, Henry Ealing, George Woodward, S. Mortimer, Alex. Dean, T. W. Bates, George Kelf, Lewis Castle, J. Jacques, C. G. A. Nix, J. Willard, A. H. Pearson, H. Balderson, and Owen Thomas.

Messrs. James Veitch and Sons, Limited, Chelsea, showed a new Strawberry called President Loubet, the result of a cross between Waterloo and Sir Charles Napier. In appearance the fruit closely resembles Waterloo, but it has a flavour much like that of Sir Charles Napier. In this respect it is an improvement, for Waterloo, although valuable on account of its size, fine appearance, and lateness, leaves much to be desired as regards flavour. The committee made no award to this new Strawberry. Messrs. Veitch also showed a basketful of Loganberry, to which a first-class certificate was given.

Mr. H. Becker, Imperial Nurseries, Jersey, sent Gooseberry Grosvenor Giant, said to be a great bearer. The fruits are large, almost round, and greenish yellow. They much resemble the variety Leader.

Mr. W. Taylor, Hampton, Middlesex, showed Peach Libra (Blackmore). It is a fairly large fruit, and highly coloured. This Peach was raised from Alexander, the pollen parent being unknown. The fruits shown were gathered from a tree planted in a cold house December, 1901, and are below the size of those gathered from the same tree in July, 1902. The fruit committee wished to see this Peach again when fully ripe.

The Loganberry was shown by Mr. Thomas Denny, The Gardens, Blandford, but the fruits were badly packed and reduced to a pulp.

Tomato Becker's Excel All was shown by Mr. Becker, Jersey. It is a round, fairly large fruit, of very bright colour.

A new Cucumber called the Lemon Cucumber was shown by Hobbies Limited, Dereham. It is entirely distinct from the ordinary Cucumber, the fruits vary in length from 3 inches to 6 inches, are oblong in shape and ribbed. Their colour is cream or pale yellow, with purple dots. This Cucumber is of American origin, and its culture necessitates very little artificial heat.

Melon Libburn Favourite, a green fleshed, very juicy variety, of medium size, was shown by Mr. R. Mathers, Abbey View, Kelso.

Mr. George Hobday, Romford, showed large well filled pods of Pea Essex Wonder.

The Strawberry Grape was well shown by Dr. E. Bonavia, Westwood, Richmond Road, Worthing.

Messrs. John R. King and Sons, Coggeshall, Essex, exhibited a collection of culinary Peas, many good varieties were included. Silver Banksian medal.

Apple Early Victoria was shown by Messrs. Cross and Son, Wisbech.

A first-class certificate was awarded to

The Loganberry.—This now well-known Raspberry-Blackberry was exhibited by Messrs. James Veitch and Sons, Limited, Chelsea.

FLORAL COMMITTEE.

PRESENT: Messrs. H. B. May (chairman), and Messrs. C. T. Drury, J. Green, J. F. McLeod, W. Howe, C. R. Fielder, Charles Dixon, W. Bain, C. J. Salter, H. J. Cuthbush, R. W. Wallace, Charles E. Pearson, H. J. Jones, Charles E. Shea, W. P. Thomson, E. H. Jenkins, George Paul, W. J. James,

Amos Perry, Charles Jeffries, J. Fraser, E. T. Cook, and R. Dean.

Mr. H. B. May, Upper Edmonton, showed a collection of some thirty-six species and varieties of *Gymnogrammas*, mostly medium-sized plants. The group was quite a feature and beautifully arranged. Indeed, the taste displayed in this direction gave an additional charm to a most interesting gathering of Gold and Silver Ferns.

We were most pleased with *grandiceps* superba, a golden-tasseled form; *chrysophylla grandiceps*, a heavily-tasseled form; and *chrysophylla ramosa*, a dwarf erect variety, and all of golden hue. In the silvery section *Cordreyl*, *flavescens cristata*, *elegantissima*, *perviana cristata*, and *perviana argyrophylla* were the most effective.

Messrs. E. Wallace and Co., Colchester, set up a group of hardy flowers in which Japanese Iris predominated. In these we noted many fine forms, both in colour and size, the dark blue being especially good. Some *Lilliums* were also shown, and these included L. Browni, L. azoticum, L. longiflorum giganteum, L. Martagon dalmaticum, L. excelsum, and L. Humboldtii magnificum. *Crimum* Powellii, and *Pentstemon* Newbury Gem, a rich crimson-scarlet, were also shown.

Carnations of the border section were shown by Messrs. R. H. Bath, Limited, Wisbech. The pot plants included Geo. Alexander (yellow), Amber Queen Albatross (bluish), Carmen Sylva (yellow ground with rose flakes), Tru Jan (white), Hayes (scarlet), White Queen, Mrs. A. Campbell, Kubelik (yellow ground with rose), Lucifer (a fine scarlet), &c.

Messrs. J. Hill and Son, Lower Edmonton, showed a small group of *Nephrolepis* Fosteri, a distinct plant. It is a handsome and decorative plant and should prove of a serviceable character.

Carnations were staged by Messrs. J. Peed and Son, West Norwood, the group including border sorts as well as Malmalsons in variety. Cecilia was well shown, and all the plants were in pots.

Messrs. William Cutbush and Son, Highgate, staged an admirable group of Malmalson and other Carnations surrounded by light Bamboos. Among the Malmalsons Lady Rose is perhaps the most charming, a lovely shade of soft rose; President Loubet, crimson scarlet; Mrs. Trelawny, red-scarlet; Calypso, Princess of Wales, Nautilus, &c. Merlin, yellow ground; Chief Baron, Bet, Grace, and Cecilia were among the best.

Hardy flowers from Messrs. Barr and Sons, Covent Garden, included *Phloxes*, *Eranthis* Youngi, *Lychnis chalcedonica*, *Platycodon grandiflorus*, *Eryngium amethystinum*, *Lilium Humboldtii magnificum* (very fine), some fine *Galliarthias*, *Lilium Martagon dalmaticum*, a choice set of hardy Water Lilies, *Lilium Browni*, *Androsace coronopifolia*, *Phlox* Mrs. Jenkins, *Lupinus arboreus*, &c.

Mr. Amos Perry, Winchmore Hill, had a lovely lot of Water Lilies that included N. ellisiana, N. andrea, N. marliacea carnea, N. robinsoniana, N. gloriosa (a grandly coloured form), N. gladioliflora (a superb white, with golden centre), N. odorata maxima, and many others. The perennials included *Campanula lactiflora* in several varieties, *Platycodon grandiflorus*, *Heuchera sanguinea* (Walker's variety, very rich in colour), and *Spiraea gigantea* and its variety *elegans*.

Messrs. H. Cannell and Sons, Swanley, Kent, showed double *Begonias* in capital form, Lady Naylor Leyland, salmon; Mrs. Thompson, sulphur; Khaki; Miss Balfie, soft pink; Earl of Devon, scarlet; and Lady H. Erskine, white and pink. A bedding strain called Eureka was represented by crimson, scarlet, and pink flowered sorts. It is evidently a most useful strain.

Messrs. J. Veitch and Sons, Chelsea, showed large masses of *Phloxes*, *Hemerocallis* Thunbergii, *Galega*, white perennial Pea, *Rudbeckia californica*, *Monarda didyma*, *Lilium candidum*, with *Campanulas*, *Pentstemons*, *Eryngiums*, and other things. In another group the firm set up a large array of Java *Rhododendrons*, pot-grown plants, showing the freedom of flowering and beautiful variety these things contain. In yet another group border Carnations were arranged. In Sweet Peas Messrs. Veitch had many good things.

Carnations were finely shown by Mr. A. F. Dutton, Bexley Heath. The varieties were Royalty, rose-pink; G. H. Crane, scarlet; Mrs. T. Lawson, cerise; and Mme. McIba, pink. Certainly a remarkable lot.

Roses from Messrs. Wm. Paul and Son, Waltham Cross, were very charming. The blooms were shown in groups in baskets. Hybrid Briar, Soleil d'Or, Beauté Inconsciente, Billiard et Barré (golden buff), Edmond Deshayes (white), Floribunda, White Maman Cochet, Earl of Warwick, a new Tea Rose, very finely perfumed, soft pink, and likely to prove a good bedding Rose, and Frau Karl Druschki, pure white, were well-shown.

Sweet Peas in variety came from Lady Plowdens, Wallingford.

Messrs. William Bull and Sons, Chelsea, showed a series of *Fuchsias*, both single and double. *Nautilus* in the latter class has a rosy white corolla; *Vallant*, red, single; *Prince of Orange*, single, being also noteworthy.

Messrs. Phillips and Taylor, Bracknell, Berks, showed Carnations, Water Lilies, and hardy plants in variety. Of the Water Lilies there was a good assortment, but the flowers generally were not sufficiently advanced. A good collection of border Carnations was included, and these again were of a representative character.

Lawrence Currie, Esq., Mentley Manor, Farnborough, Hants, set up a fine lot of some two dozen Water Lilies in pans in the cut state. In some instances as many as one dozen flowers were exhibited, and these of the finest description. Of the more noticeable were N. Marliacea alba, N. M. Rosea, N. odorata, N. alba candidissima, N. ellisiana, N. Marliacea chromatella, N. tuberosa, N. pygmaea helvola, N. Laydekeri lilacea, &c. This handsome lot was well backed by Bamboos and interspersed with Ferns made a lovely display.

Messrs. Dobbie and Co., Rothesay, had an assortment of Sweet Williams which they call Auricula-eyed strain. The strain certainly is a very fine one, and quite representative of this useful flower. The trusses, too, were handsome, and

the flowers individually of large size and good form. The strain was commended by the committee.

Cut Roses were well shown by Messrs. Paul and Son, Old Nurseries, Cheshunt. Belle Siebricht, Her Majesty, Mme. Ravary, Marquis of Salisbury, Alfred Colomb, S. Reynolds Hole, Bessie Brown, and Caroline Testout being among the best. The blooms were finely shown in vases.

Mr. James Douglas, Great Bookham, showed Carnations well, Triton (crimson), Seymour Corkran (yellow), Badoura (yellow ground, light rose edge), Copperhead (orange-scarlet, a fine shade), Rizzio (yellow), Othello (dark crimson edge), Heperia (yellow ground, fancy), Lord Napier (yellow, with the finest possible edge of rose colour), Agnes Sorrell (fine crimson, large), and Bookham Clove, being the best in a very large lot.

NEW PLANTS.

The following received a first-class certificate:

Nymphaea gigantea Hudsoni.—A giant form of the blue-flowered section. The variety is bolder generally than in typical N. gigantea, the several rows of petals broader and rounder, and the entire flower more decidedly reflexing. The colour is deep mauve-blue, with golden centre. The flower shown was just 9 inches across the spread of the lower segments. A very handsome Water Lily. Shown by Leopold de Rothschild, Esq., Gunnersbury House, Acton (gardener, Mr. Hudson).

The following received an award of merit:

Lilium elegans Peter Barr.—This is one of the orange-yellow forms, of which Alice Wilson and Orange Queen are among the best in this shade of colour. The plant is usually about 12 inches high, and in this way makes admirable examples for grouping among shrubs or for pot work. The flowers are of good size, more starry, and less intense in the orange-yellow shade than the others named. Exhibited by Messrs. Barr and Sons, King Street, Covent Garden.

Begonia Marie Bouchet.—A very remarkable variety for basket work where the trailing growth and the great freedom of flowering would be seen to advantage. Many of the trailing shoots were fully 4 feet long, the plant, as shown, 3 feet across or more. The flowers are crimson-scarlet, with a curious doubling in the centre that gives the whole plant a characteristic quaintness. Shown by W. Greenwell, Esq., Malden Park, Woldingham (gardener, Mr. W. Lutott).

Nephrolepis Fosteri.—A very useful decorative Fern, good either in specimen form or as quite ordinary size plants in 5-inch pots. The habit is semi-erect, and the plant is of a pale green colour. From Messrs. Hill and Son, Edmonton.

Asparagus plumosus cristata.—As shown, this is quite a dwarf form, little more than 1 foot high above the pot. The dark green, rather dense habit at first, reveals but little of its character; but with the maturing of the "fronds," so-called, the pale green tips develop a plumose crested character of some density, which is very similar to the same feature in many Ferns. Shown by Sir Trevor Lawrence, Bart., Balford, Dorking (gardener, Mr. Bain).

Pteris metallica.—A species with dark olive green leaves, as shown, the habit generally erect, the divisions of the fronds oblong-lanceolate. The hard texture of the fronds should render the plant a most serviceable one. Shown by Mr. H. B. May, Upper Edmonton.

LIST OF MEDALS.

Silver-gilt Flora to Messrs. J. Veitch and Sons, Chelsea. Silver-gilt Banksian to Messrs. Cutbush, Highgate.

Silver Flora to Messrs. Currie, Farnborough; Mr. H. B. May, Upper Edmonton; Mr. Dutton, Bexley Heath.

Silver Banksian to Messrs. Wallace and Co., Colchester; Mr. Amos Perry, Winchmore Hill; Mr. Jas. Douglas, Great Bookham; Messrs. W. Paul and Son, Waltham Cross; Messrs. Paul and Son, Cheshunt.

The strain of Auricula-eyed Sweet Williams, from Messrs. Dobbie and Co., Rothesay, was commended.

LECTURE.

Mr. G. Hunt gave a lecture entitled "Horticulture in, and the Flora of, New Zealand." The lecturer said that horticulture had made rapid strides in New Zealand. The Rose had many admirers, all the new English and Continental varieties are grown. The Chrysanthemum also is grown to perfection. Its culture, however, now is of secondary importance to the Rose. Both these plants bear the sea voyage well; this cannot be said of most soft-wooded plants, which are raised from seed chiefly. Zonal *Pelargoniums* are largely grown also, even the most recent varieties. Many of the plants most commonly grown in England are quite at home in New Zealand, except in the south, where it is too cold for some of them. The neighbourhood of Wellington is not so favourable to gardening as Christchurch, which has a more genial climate and good soil. Mr. Hunt said that trees and plants familiar at home assume quite a different aspect in New Zealand; plants become bushes, and shrubs become trees. The public garden at Christchurch is one of the best and is well maintained.

Potato culture has been taken up by settlers. Good Grapes are produced upon land reclaimed from the bush. The Government, as an experiment, planted 3 acres of such land with vines, and the yield of wine the first year was 800 gallons, which, at 5s. per gallon, would fetch £200, or two-thirds of the original expense, which amounts to £100 per acre. It is to be hoped that the Government will help settlers to establish viticulture as a permanent industry in New Zealand. *Phormium tenax* (the New Zealand Flax) is so abundant that the mills are supplied with fibre from plants growing wild. Mr. Hunt mentioned that Apples were grown, but some years must elapse before they can be exported in sufficient quantity to compete with Tasmanian fruits. Various pests are very destructive, and the lecturer seemed to think that until the Government introduced compulsory measures for the cleansing of orchards little progress would be made. The climate is well suited to Apple culture. Strawberries and Raspberries are largely grown, and usually command good prices.

The lecturer said there was a good field in New Zealand for people with small capital; every facility is offered to those going out for the purpose of fruit farming, &c. Strong,

steady young men are wanted to bring the bush land into cultivation. A hearty welcome always awaits British settlers. With reference to the flora of New Zealand, Mr. Hunt said that the native flowers are remarkable for their quiet colouring. Brilliantly coloured flowers are the exception. He instanced as being some of the most remarkable, *Myrtles*, *Eugenia*, *Ranunculus*, *Magnolias*, *Violas*, *Pittosporum*, *Hibiscus*, *Linum*, *Pelargoniums*, *Buckthorns*, *Ceanothus* (one of the most striking of New Zealand flowers), *Sedums*, *Sundews*, *Veronicas*, &c. Mr. Hunt said he would be glad to give information to anyone respecting the flowers of New Zealand and also seeds of them.

He suggested that when the society came to make its new garden it should devote portions to the best plants of various colonies, and so tend to foster the study of the colonial flora. Mr. A. H. Pearson, who occupied the chair, proposed a hearty vote of thanks to the lecturer.

NATIONAL CARNATION AND PICOTEE SOCIETY.

A FINE exhibition was held in the Drill Hall on the 21st inst. It was one of the finest displays of the Carnation society has held for years. There was heard, as is usual, some condemnation of the method of showing flowers with white paper collars on boards, a method which has survived years of denunciation, and will many more. The hall was largely occupied with the competitive exhibits, and groups of Carnations were contributed by several members of the trade.

DIVISION I.—The leading class was for twenty-four Carnation blooms, bizarres and flakes, and there were but three exhibitors, the first prize falling to Mr. Thomas Lord Florist, Tudmoreton, whose leading blooms were P.F. George Lewis, C.B. J. S. Hedderley, S.B. Robert Houlgrave, R.F. Merton, C.B. George, C.B. Master Fred, S.B. Robert Lord, P.P.H. William Skirving, S.F. Sportman, P.F. George Melville, C.B. Guardaman, C.B. J. D. Hextall, S.B. Admiral Curzon, R.F. Mrs. T. Lord, and R.F. H. Shoemith; Mr. Martin K. Smith, Hayes (gardener, Mr. C. Bick), was second, whose leading blooms were S.B. Dorothy and Halim (two seedlings), C.B. Nestor and Adonis (also new), P.F. Euphonia, and J. S. Hedderley, R.F. Genevieve and Flava (seedlings), S.F. Gladiator (new), K.F. Sweet Nell, Markham, Dalby, and Dorothy (all new); third, Mr. C. Turner, Royal Nursery, Slough.

The next class was for twenty-four selfs, in which some very fine blooms were staged; Mr. M. E. Smith was placed first, having superb flowers; of maroon and crimson shades there were Sir Bevy, Guinere, Kara, Agnes Sorel, and Don John; scarlet and rose, Anne Boleyn, Helen and Floradora; apricot, Swabshucker; yellow, Cecilia, the Naiad, and Daffodil; white, Hildegarde, Mrs. Eric Hambro, and Blanche. Mr. F. A. Wellesley, Woking, who has come to the fore in strong force this season, was placed second; he had fine blooms of Agnes Sorel and Almoner, yellow; Falcon, yellow; Cecilia, Mrs. W. Moatyn, purple; Benbow, apricot; Mrs. J. Douglas, rose, &c.; third, Messrs. W. Artindale and Son, Florists, Sheffield. With twenty-four fancy Carnations Mr. F. A. Wellesley, was first, with what appeared to be perfect blooms so finely were they developed; they consisted of Hildaigo, Charles Martel, Monarch, Argosy, Perseus, Amphion, Voltaire, Primrose League, Guinevere, Queen Bess, Paladin, Clapay Queen, Ormonde, Osalan, and Mrs. T. W. Wellesley, a beautiful new variety, yellow ground, flaked on the petal edges with maroon and crimson; Charles Martel, &c. Mr. M. R. Smith came second, he had very fine blooms of Lily Duchess, Bedemer, Hesperus, Bellicent, Athelstan, A. W. Jones, Queen of the Isles, Cavalier, Corporal Trim, The Beer, Thor, Hildaigo, Kameses, &c. Messrs. Blackmore and Langdon, nurserymen, Tiverton, Bath, were third with some very fine blooms, and Mr. C. Turner was fourth.

White ground Picotees were not so numerously shown, but there were five exhibits. Mr. F. A. Wellesley taking the first prize with some finished blooms, pure in the ground and bright on the edges. Of heavy edged reds there were Brunette, W. E. Dickson, Ganymede, and John Smith; light red, Thos. William; heavy purple edges, Amy Roberts, Muriel Miriam, and Fanny Tett; light purple edges, Somerset; heavy rose edge, W. H. Johnson, Ohio, and Mrs. Payne; light rose edge, Fortrose, Nellie, and Favourite. Mr. M. E. Smith came second with some very good blooms, in which heavy rose edged flowers largely preponderated; there were of heavy red edged Manners, Brownie, and Ganymede; light red edged Grace Darling; heavy purple edged, Amy Roberts, Beau Nash, and Miriam; light purple edged, Duchess of York; heavy rose edged Tiptop, Mrs. Berwick, Acacia, Little Phil, Miss Sophy Grahame, Duchess of York, and Lady Louisa, and light rose edged Fortrose, and Favourite; third, Messrs. W. Tuplin and Sons, Florists, Newton Abbot.

In each of the foregoing five classes it was necessary there should be not less than twelve varieties. With six blooms of one variety, self Mr. M. R. Smith was first with Daffodil, a very fine pure yellow; Mr. F. A. Wellesley was second with Old Germania, yellow, in fine character; third, Mr. C. Turner, with Sir Bevy, maroon. With six blooms of a yellow or buff, fancy, one variety, Mr. F. A. Wellesley came first with Mrs. F. A. Wellesley, a beautiful pale yellow ground flower, edged with lines of rose-scarlet and maroon; this variety also received a certificate of merit. Mr. M. E. Smith was second with King Solomon, having vivid flakes of red and maroon on a light yellow ground; very showy. Messrs. Blackmore and Langdon came third with Kitchener, pure yellow, heavily edged with bright red; also awarded a certificate of merit. With six blooms of a fancy Carnation, other than yellow ground, Messrs. Blackmore and Langdon were first with their charming variety Millie, uniform and highly finished blooms of which were staged. It is pure white, with a few lines of rose at the point of the middle of each petal. Mr. F. A. Wellesley came second with the same, and Mr. M. R. Smith third with Mr. Sebright, rosy pink with flakes of heliotrope, a finely formed and distinct flower. With six blooms of a yellow ground Picotee, also one variety, Mr. Smith again came first with Mrs. Walter Heriot, a beautiful and refined flower having a wire edge of rose. Mr. Wellesley came second with Lady St. Oswald,

and Messrs. Artindale and Sons, Sheffield, third with Child Harold.

With twelve distinct varieties, selfs, fancies, and yellow grounds, three blooms of each variety in a bottle, Mr. M. R. Smith was placed first with very fine blooms, although not dressed; they were unnamed, and represented selfs and fancies; Messrs. Blackmore and Langdon were second, and Messrs. Artindale and Son third.

Then came single blooms in their several classes. Crimson bizzars: First, Messrs. Thomson and Co. with Robert Houlgrave; second, Mr. J. Butt with the same; and third, Mr. E. Paah with Admiral Curzon. Crimson bizzars: First, Mr. Wellesley with J. S. Hedderley; Mr. Butt was both second and third with the same variety. Pink and purple bizzars: First, Mr. D. Walker with William Skirving; and Mr. Wellesley third with the same; Mr. E. J. Wooten second with Sarah Payne. Purple flukes: First, Mr. W. Spencer, and second Mr. E. J. Wooten with George Melville; Mr. J. Fairlie came third and fourth with Gordon Lewis. Scarlet flukes: First, Mr. Wooten with sportman; Messrs. Thomson and Co. second with J. J. Keen, a bright new variety of decided promise; third, Mr. Paah with Sportman.

Rose flukes, a refined variety named Merton won the first four prizes; Messrs. W. Pemberton and Son, florists, Walsall, were first and second; and Mr. J. G. Keen, Southampton, third and fourth. Selfs, white, or bluish: Mr. R. C. Cartwright, King's Norton, was first with Ensign, and Mr. A. J. Cook second with Ensign. White: Mr. Cartwright came third with Much the Miller. Rose or pink selfs: First, Lady Hermione, from Mr. W. H. Porter; a promising seedling from Mr. E. J. Wooten was second; and Bomba, from Mr. A. J. Cook, third. Scarlet or crimson selfs: First, Mr. W. Spencer with a scarlet sport from S.F. John Wormald; Mr. Cartwright came second with a seedling; and Mr. D. Walker was third with Sirdar. Bright crimson maroon or purple selfs: First, Mr. E. Harrington with Helen, crimson-purple shaded with maroon; and he was second also with the same; a variety named Mrs. Mostyn, purple, was third. Yellow selfs: First, Mr. E. J. Wooten with Almoner, pale yellow; Mr. E. Harrington came second, and Mr. W. Spencer was third with Old Germania, very good.

Buff selfs: First, Mr. Wellesley; and second and third Mr. R. C. Cartwright, each with Benbow, the best of this class of colour. Fancy yellow grounds: First, Mr. B. Nash with Monarch; second, Mr. Wellesley with Mrs. F. A. Wellesley; and third, Mr. Cartwright with Argus. Fancy, other than yellow grounds: First, Mr. Smith with Nestor (white ground, with heavy pencillings of scarlet); Mr. Cartwright was second; and Mr. E. J. Wooten third with Artemis (flaked with scarlet on a slate ground).

Picotees were also shown in single blooms. Heavy red edges: First, Mr. B. Nash with Mrs. Anstias; Mr. J. J. Keen was second; and Messrs. W. Pemberton and Son third with John Smith. Light red edges: First, Mr. Keen; second, Mr. Spencer with Thomas William; Mr. J. Butt came third with Grace Darling. Heavy purple edges: First, Messrs. Thomson and Son with Fanny Tett; second, Messrs. W. Pemberton and Son with Amy Roberts; Mr. J. Butt coming third with Fanny Tett. Light-edged purple: First, Mr. Wellesley with Summerhill; second, Mr. E. J. Wooten with Pride of Leyton; Mr. J. Butt was third with Lavinia. Heavy-edged rose or scarlet: First, Mr. E. J. Wooten with Fortrose; second, Messrs. W. Pemberton and Son with Lady Louisa; and third, Mr. W. Spencer with Mrs. Payne. Rose or scarlet, light edges: Mr. Wooten was placed first, and Mr. Spencer second with Favourite. Mr. Wellesley coming third with Fortrose. Yellow ground, heavy edges: First, Mr. Keen with Gronow, Mr. Smith coming second with Dalketh; the same variety was also third, but no name of an exhibitor was appended. Yellow ground, light edges: Mr. Smith was first with Mrs. Walter Howard; neither the name of the flower or the exhibitor appeared on the second prize bloom; Mr. B. Nash was third with Heliodorus. Premier flowers: The selection of these entails a great amount of labour on the part of the judges, as every bloom in the show is a competitor. The premier bizzar was C.B. J. S. Hedderley, a very fine bloom from Mr. Wellesley, and he had the premier fluke in P.F. Gordon Lewis. Self: Ensign (white), from Mr. Cartwright. Fancy: Mrs. F. Wellesley, from Mr. Wellesley. Heavy-edged white ground Picotee: John Smith, from Mr. J. J. Keen. Light-edged Picotee: Lavinia, from Mr. A. J. Rouberry. Heavy-edged yellow ground: Dalketh, from Mr. Smith. Light-edged: Child Harold, from Mr. E. H. Buckland.

The silver cup offered in this division for the greatest number of points scored was awarded to Mr. F. A. Wellesley.

DIVISION II.—Here the leading class was for 12 white ground Carnations. Messrs. W. Pemberton and Son were first with very good blooms, chief among them E.F. Merton, S.F. Flamingo, P.F.B. J. D. Hextall, P.F. Geo. Melville, R.K. Mrs. Rowan, P.F. Charles Henwood, S.B. Robert Houlgrave, and S.F. Sportman; second, Mr. W. Spencer, jun.; third, Messrs. Thomson and Co. With 12 selfs, Mr. W. Spencer took the first with highly finished blooms of Almoner, Barras, Hildegarde, Jocelyn (heliotrope), Sultan, Much the Miller, Orpheus, Orion (blush), Benbow, Germania, Helen, and Britannia. Messrs. Thomson and Co. came second, also with very fine blooms, chief among them Enchantress, Mrs. F. Sims, Dick Donovan, The Sirdar, Amphion, &c.; third, Messrs. Phillips and Taylor, Bracknell. With 12 fancies Mr. Spencer was again to the fore with splendid blooms of Paludin, Voltaire, Galileo, Argosy, Artemis, Queen Beas, Monarch, Ormonde, Mrs. Tremayne, Oleron, and Amphion; second, Messrs. Thomson and Son, also with excellent blooms; third, Messrs. Phillips and Taylor. With 12 white ground Picotees Mr. B. Nash was first, Messrs. Pemberton and Son second, and Mr. Spencer third. They comprised the varieties given in Division I.

With twelve yellow ground, Mr. B. Nash came first, having excellent blooms of Heather Bell, Lady St. Oswald, Lady Bristol, Hesperia, Evelyn, Mohican, and Mrs. Douglas; second, Messrs. Thomson and Co.; third, Mr. W. Spencer. With six blooms of a self, one variety, Mr. W. Spencer was first, and Mr. B. Nash second with Mrs. Eric Hambro,

white; Messrs. Phillips and Taylor coming third with an unnamed yellow. The best six blooms of a yellow or buff fancy were Voltaire, very fine, from Mr. W. Spencer; Mr. B. Nash came second, with Mrs. Tremayne; and Messrs. Thomson and Co. third with Voltaire. With six blooms of any other but the above, Mr. E. Harrington was first with Ivo Sebright in beautiful character; Mrs. Brookes Smith, white flaked with rosy crimson from Mrs. Brookes Smith, second; Mr. W. Spencer coming third with Muletter slaty crimson, flaked with scarlet. With six varieties selfs, fancies, or yellow grounds, three blooms of each in bottles, Mr. S. Morris, Wretham Hall, Thetford, was first with very good blooms, nicely arranged; Mr. W. Spencer was second; and Messrs. Thomson and Co. third. The winner of the cup in this class was Mr. W. Spencer, Southampton.

DIVISION III. was for growers of small collections, and in these good flowers were staged. Mr. James Fairlie had the best six blooms of Carnations, while Mr. R. C. Cartwright came first with six selfs, having Lady Hermione, Much the Miller, Sir Bevis, Mrs. C. Sharpin, Orpheus, and Germania in fine character; Mr. D. Walker, Kilmarnock, was second in both the foregoing classes. Mr. Cartwright came first with six fancies, and Mr. E. W. Wilson had the best six blooms of white ground Picotees; Mr. E. H. Buckland the best six blooms of yellow ground Picotees, among them a finely finished bloom of Child Harold.

There were several classes for three blooms, in which Mr. E. Harrington took several first prizes, showing excellent blooms. There were also several classes for sixes of undressed blooms in several sections, and also for single blooms; and a class for seedlings also, two blooms of each being shown, the leading blooms in which are mentioned below as certificated flowers. The cup offered in this class was won by Mr. R. C. Cartwright.

Carnations in pots: Though four classes were set apart for these there was but one exhibit, that from Mr. C. Turner filling a space of 50 feet, to which a first prize was awarded.

Floral decorations were provided for in the class for two bouquets. Mr. M. B. Smith was placed first with one of white; the other of mixed Carnations, tastefully arranged with appropriate foliage. Mr. D. Oliver was second with two poor bouquets, one of white, the other of pink Carnations. The best vase of Carnations was from Mr. Smith, mixed colours being prettily arranged with Asparagus and other foliage. Mr. Healing, Reigate, was second, with much the same details. Mr. W. Spencer staged the best three ladies' sprays, and Mr. Smith the best buttonholes.

Certificates of merit were awarded to the following seedlings: To Mrs. F. A. Wellesley, a beautiful flower, fine in petal and bright in colour, pale sulphur ground with marginal markings of rose-scarlet and maroon. From Mr. F. A. Wellesley, Woking.

Ivo Sebright, bright rosy pink, with flakes of pale heliotrope, a beautifully formed flower, distinct, and quite novel. From Mr. M. V. Harrington.

Speranza, a very fine, pale yellow ground Picotee, edged with deep rose. From Mr. M. B. Smith.

Richness, a handsome yellow ground fancy, heavily edged with bright red, a rich and striking variety, from Messrs. Blackmore and Langdon, Twerton Nursery, Bath.

A striking scarlet flake Carnation named J. J. Keen, the flakes of bright scarlet on a white ground, failed to gain an award, but it is highly promising. It was shown by Messrs. Thomson and Co., Birmingham.

HIGHGATE HORTICULTURAL SOCIETY.

THE forty-fourth annual exhibition of this well-known society was distinctly in advance of most of those of recent years. It was held on Thursday, 16th inst., in the grounds of Southampton Lodge, the residence of Colonel J. Wilkinson. Wet weather, unfortunately, marred the proceedings.

In the larger tent no less than nine groups were displayed in the different competitions. For a group of flowering and foliage plants, a beautiful arrangement of plants of good quality deservedly placed Mr. J. Callingham, gardener to Mr. H. Harnsworth, North End Place, Hampstead Heath, first. The plants were well arranged. A bolder arrangement secured second prize for Mr. T. L. Turk, gardener to Mr. T. Boney, Southwood House, Highgate. In this instance also the plants were of good quality.

A group of exotic Ferns, Caladiums, and Coleus, arranged for effect, in a space 50 feet square, made a very rich and striking feature. There were two exhibits, a highly meritorious group winning first prize for Mr. E. H. Chitty, gardener to Mr. S. Hardy, Cholmeley Lodge, Highgate. Mr. Turk was a good second. The group of flowering plants was a pretty feature, that which gained premier honours for Mr. Turk being an exceptionally striking one. Fuchsias, Begonias, Cannas, Spireas, Petunias, and the Chimney Campanulas, with other plants, making a splendid display; Mr. Chitty was placed second.

A special class for a group, open to single-handed gardeners only, found Mr. J. Adams, gardener to Mr. E. H. Smithett, Hillside, Fitzroy Park, Highgate, leading with a distinctly attractive group. The second prize went to Mr. Chitty, who had a good collection. For six Coleus, distinct, a capital series secured leading honours for Mr. G. Drage, gardener to Mr. E. P. Sells, Sarnesfield, Highgate. Not so good a set placed Mr. Chitty in the second position.

Mr. Drage again led in the class for six Gloxinias, distinct. This was an exceptionally handsome lot of plants. The colours also were superb. Close up was Mr. G. W. Earp, gardener to Mr. J. S. Sellon, The Grange, Highgate. The colours and the individual flowers in this instance were superbly fine. A less regular series was placed third, this came from Mr. W. Smith, 81, Canonbury Road, Highbury.

For six tuberous-rooted Begonias, distinct, grand plants of the better type of these flowers secured first prize for Mr. Drage. The plants were large and freely-flowered, and gave evidence of good culture. Good plants, though of poorer quality, placed Mr. Chitty second.

Excellent plants of six exotic Ferns, in a class open to single-handed gardeners, were freely shown. There were four entries, and a good set well merited first prize for Mr.

Chitty, Adiantums and Pterises being well shown. Mr. J. Adams was an uncomfortably close second, and Mr. Smith a good third. These plants were much better than usual.

Nine stove or greenhouse plants, suitable for house decoration, in pots not exceeding 7 inches in diameter, at least three to be in flower, gained Mr. Callingham the first prize, and the second award went to Mr. Earp.

In the open class for twenty-four bunches of hardy cut flowers, distinct, Mr. G. W. Earp was placed first with a splendid series of bunches. A good second was Mr. D. R. Crane, 4, Woodview Terrace, Highgate, who also had large bunches more pleasingly disposed.

Mr. Crane was an easy first in the class for twelve bunches of Sweet Peas, showing this popular annual in grand form. Mr. Earp was second, and Mr. Callingham third.

For dinner table decorations there were but three entries, Mr. Turk being placed first, Mr. D. B. Crane second, and Mr. Chitty third.

In a collection, hardy fruits were exceptionally well shown by Mr. Earp. A collection of nine dishes secured second prize for Mr. D. B. Crane.

Messrs. Wm. Cutbush and Son, Highgate and Barnet, put up a pretty group, in which freely flowered plants of Verbena Miss Willmott, the new Marguerite Coronation, and Lantanas were excellently represented.

A word of praise is due to Mr. W. E. Boyce, the secretary and superintendent; the arrangements left nothing to be desired.

GARDENS OF JAMAICA.

(Continued from page 47.)

THE BREAD FRUIT.

In some parts of this country the Bread Fruit is found in great perfection. Few trees are more valuable and better reward the culture of the husbandman. They were introduced from the Society Islands, and there is now in existence at Hopeton, in the parish of Westmoreland, one of the original trees which grew from a plant brought by the Bounty to the island.

The tree is graceful and beautiful in its appearance, particularly when it is covered with fruit, which sometimes is as large as a man's head. The leaves are very large and curiously scalloped. The fruit has round marks on it, having something the appearance of scales. It cannot be eaten in an uncooked state, but when roasted it is an excellent substitute for bread. The inner part has the consistency of a firm white Potato, with small seeds occupying the very centre. When these are removed the Bread Fruit is usually eaten hot with butter.

There is another very remarkable tree, bearing a fruit which has some resemblance to the Bread Fruit. It is called

THE JACK FRUIT.

This tree is larger than the one about which we have been speaking, and, instead of being cultivated like the Bread Fruit, grows wild. Its leaves are much smaller and less beautiful, but the curious feature of it is that the fruit, instead of being produced from the small boughs and overhanging limbs, grows from the trunk and larger branches. It is most singular to see them on the huge trunk, especially as they generally grow to nearly double the size of the Bread Fruit. It is not rounded in the same way, but is straggling and irregular in its form, having small, soft prickles on it, like another fruit of which we shall presently speak. The Jack Fruit when eaten is roasted like the Bread Fruit, but it is not palatable.

THE SOUR-SOP.

is the fruit to which we have just referred, the appearance of which is very like the Jack Fruit, except that it is much smaller. The skin, too, is of a darker green, and the soft prickles more widely separated one from the other. Unlike the Jack Fruit, it is eaten in its uncooked state, like any ordinary fruit, and it is produced from the smaller branches. When the skin is broken it presents a mass of long black seeds, covered with a white pulp. This pulp is eaten, and although not very wholesome, it possesses a delicious acid flavour, and is much liked by some persons. Of the same character is

THE SWEET-SOP,

which is so called from its being much sweeter than the other. It is formed in much the same way. The skin, however, is without the soft prickles already mentioned, but there are small, round compartments, which, as the fruit ripens, become more and more separated one from the other, until extreme ripeness would lead to its breaking.

Both these trees are of moderate size, and do not differ materially in the nature of the foliage. We have now to speak of

THE FIG,

and in doing so it must be borne in mind that there is no resemblance between the Indian Fig and that which is known in England. The English Fig is grown in Jamaica, but that which is commonly so called produces a fruit, which, although it is eatable, is hardly ever eaten. Some of these trees are of great size, with thick boughs and foliage of a dark colour; they bear a small red fruit.

But the most singular feature of this tree is, that it is generally, though not universally, produced from a parasite not very unlike the Mistletoe. It is probable that the seeds are deposited by birds on the boughs of large trees. Roots from these seeds strike into the boughs, and these roots in process of time descend until they reach the ground. They then take root, and as they increase in size and strength gradually cramp and surround the tree from which they have grown. The tree languishes, and after the lapse of some years dies, leaving the Fig tree to occupy its place.

As an amusing illustration of the tenacity of character of the Scotch people, and the soft indolence of the Creole, the Fig tree in the act of destroying that from which it has sprung is called "the Scotchman hugging the Creole to death!" The roots which descend from the fostering tree form distinct trunks, and thus some of the Fig trees may be seen having as many as seven separate trunks, all of which become united at the points whence the branches radiate. The tree which we see on yonder hill is

THE CALABASH.

It is almost the size of an Apple tree, but with its pretty light branches stretching out on each side in most regular order. The leaves are rather small, and appear more inconsiderable from their being thinly scattered about the boughs.

From the limbs a large quantity of fruit is hanging. They vary in size from that of an Apple to that of a large lamp globe. They are of a green colour, but become dark brown when dried in the sun. The fruit of the Calabash is very useful for making drinking and other vessels for the natives. There is a hard outer shell, and this being carefully divided in two, and a part of one side cut off, one side becomes a cover for the other, and a neat box is thus formed. The inner part of the Calabash is a hard pulp, which is sometimes used for cleaning furniture, but is otherwise of no value. We may here observe a production of the same kind, and that is

THE GOURD.

This is a large creeper, producing a kind of Calabash. Some of them are almost the size already mentioned, but others attain a very considerable growth. The shape of these differs from that of the Calabash, being of the form of the Pear, with a long narrow neck. They are very much used by the natives for carrying water, and some of them will contain three or four gallons. They are, of course, very liable to be broken, but some Gourds are made with care to last for many years. We must not confound these with another creeping plant, which likewise produces a fruit of very great size. This is

THE STRAINER.

This is more a huge pod than a fruit, and might by some persons be placed in the category of monster Beans. The Strainers are from 12 inches to 24 inches in length, and in the widest part 6 inches or 8 inches in diameter. The outer skin of this enormous pod is thin, but when this is removed the formation of the interior is most curious. The whole is a network of fibre most beautifully and finely arranged. These fibres are so closely interwoven one with the other that even wine might be strained through them; their name of Strainer arises from their being sometimes used for this and similar purposes. When the Strainer is divided the inner part is found to be rather hollow. There are ridges of the same fibre which pass down the sides in regular order, and in these

ridges are black seeds by which the plant is propagated. They are often turned inside out, and in this state most beautiful baskets and other ornamental works are made from them.

(To be continued.)

THE KITCHEN GARDEN.

CABBAGES.

LATE podding of Peas, for the long spell of cold and rain has checked this process very materially, combined with the comparative scarcity of Cauliflowers and other green vegetables in the market, have all helped to render Cabbages in great demand; indeed, but for them we should be short indeed of vegetable food. That such is the case helps greatly to emphasise the value of Cabbages as hardy spring vegetables. Happily we have largely got rid of the large heads that were once so much grown. In such varieties as April, Ellam's Flower of Spring, Defiance, First and Best, London Market, and others we have capital stock, that, by making two or three late summer and autumn sowings and plantings, give a plentiful supply of quite delicious hearts from March to midsummer. If a sowing be made in a frame in October, and the plants when strong put out in April following, it is easy to have Cabbages all the summer. Happily by the end of June we may hope to have Peas and Beans in abundance. A. D.

SEEDS WHICH SHOULD BE KEPT.

I HAVE taken the following passage concerning Gilliflowers from a book published without the author's name in 1765:—"Some amateurs, and even some expert gardeners, assert that the seed of the Gilliflower, when kept for five or more years, produces more plants with double flowers than new seed does. Supposing this to be so, the reason is that seeds which are only good for the production of single blossoms lose their vegetative force sooner than others, from which it follows that a sowing of old Gilliflower seed would produce a smaller number of plants but a greater proportion of double flowers." What credit ought we to give to this opinion of nearly two centuries ago? According to a belief which has been transmitted from generation to generation it is better to use seeds of from two to five years old (according to the species and variety) for certain leguminous and floral plants. Why? Old gardeners have told me that new seeds produce plants which are not so well formed, which rapidly run to seed and are too vigorous to maintain their characteristics, while from seeds two or more years old the plants are more regular in form, and running to seed is less to be feared, &c.

Every plant, generally speaking, has the property of reproducing itself with its characteristics by seeds, but at the same time it is liable to revert to the specific types. Therefore in the seed of a plant perfected by culture two forces oppose each other, the one tending to revert to the primitive type, the other tending to the reproduction of certain acquired characteristics which selection has fixed. It is quite possible that this force of atavism weakens with age, as does also that anomalous vigour which causes the progeny of some seeds, when sown soon after gathering, to run at once to seed. It is not the same, however, with Gilliflowers. If we admit that doubling in these is weakening, it is easy to believe that a seed several years old does not possess its first vigour, and may produce double instead of single flowers. It would be here a question of a real transformation in the seeds, a transformation which may be admitted when it is remembered that the less Gilliflowers are left to themselves the more plants will they produce with double blossoms. It is for this reason that in Germany they are grown in pots, and by this means a much higher percentage of plants with double flowers is obtained than when they are grown in the open ground.

But it is with culinary vegetables that it is

especially necessary to know whether to choose new or old seeds. Thus for Beetroot and Carrots only seeds two years old should be used in order that the root may be better formed and that too much "top" will not be made; in the same way for Endive and Cabbage seed three years old should be employed. If it is desired that Spinach, Lettuce, and Radish should not run to seed or change from the type seeds two years old must be used. For Corn salad it is indispensable to sow seed at least one year old, for the seed gathered in June scarcely comes up at all when it is sown in the following September or October. In *Le Bon Jardinier* of 1829 it is recommended in the sowing of Melons to choose seeds several years old; and it is the same for other cucurbitaceous plants. For early sowings of Turnip it is equally necessary to use seeds several years old in order to prevent the plants running to seed.

Thus the influence of time upon seeds appears to be well established, and it is not possible, perhaps, to account for this in any other way than by the suppositions we have advanced.

JULIUS RUDOLPH, in the *Revue Horticole*.

Ipomoea rubro cœrulea.—This singularly beautiful climber I saw flowering most freely and effectively the other day in one of Lord Onslow's greenhouses at Clandon Park. There were six plants, each in a 6-inch pot, raised from one of Sutton and Sons' packets. A more lovely climber for such a purpose it would be hard to find. The gardener, Mr. Blake, had run some wires along each side of the centre alley, and the plants were placed on top of the side walls, with their growths trained erect and laterally. All the plants were in profuse bloom, the flowers large, of perfect *Convolvulus* form, and in colour pale or soft blue with thin reddish bars. This is one of the greenhouse plants that everyone having a house can grow and be delighted with. The plants evidently flower over a long season. It would be interesting to learn whether anyone has tried it outdoors. What a glorious thing it would be to intermix with one of the scarlet climbing *Tropæolums* on a warm wall.—A. D.

Two useful West Indian plants.

To those who cultivate the several species of edible *Passifloras*, the following note from the *Trinidad Bulletin* as printed in the *Agricultural News* will probably prove interesting: "*Passiflora laurifolia*, which is known as the Bell Apple, is commonly grown in many of the West Indian Islands. In Trinidad it requires to be cultivated well in the open and on trellises so that it may get plenty of sun. The fruit is some 2½ inches to 3 inches in diameter and almost globular, turning from green to a bright yellow on ripening. The outer skin is spongy and leathery, and the contained pulp is in flavour and consistency much like the interior of a large sweet Gooseberry, which it surpasses in flavour. It is eaten by paring away a part of the apex, then squeezing the fruit, or by cutting in halves and using a spoon. Care should be taken not to eat any portion of the rind, as most of the *Passifloras* possess an emetic principle which is slightly developed in the fruit-skin of this species, and children are sometimes made ill from this cause. It is an excellent fruit, and well worthy a place at dessert. It is commonly sold in the markets of the Windward Islands. From the same source as the foregoing is obtained we find the following curious note on what is called the Hat-stand Tree, a name which is said to be given to *Rheedia lateriflora*. It is common in the woods of Trinidad, and is noted for its regular branching character when small. It is frequently cut and placed in a heavy base and used as a hat-stand. A small tree of 8 feet or 10 feet will often have as many as twenty or more branches of even size thrown out at regular and close intervals at an angle of 45° from the main stem. These when shortened into a pyramidal form and nicely trimmed and polished serve exceedingly well for the purpose. If the main stem is further provided with rings about 20 inches from the base for umbrellas and a draining trough fixed it may be made still more useful.—JOHN R. JACKSON, *Claremont, Lympstone, South Devon*."

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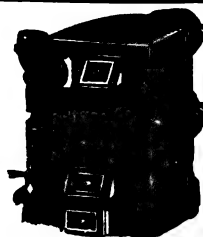
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FROM ALL SEEDSMEN.

Tufted Pansy Bullion.—"D. B. C." speaks appreciatingly of this fine yellow kind, a fact that greatly interests me. It must be sixteen years since I first began to draw attention to the many good qualities of this Pansy as a free, early, and continuous flowering variety. I got it originally from the late Mr. William Dean when at Walsall. Mr. Dean, who first got it from the late Mr. Baxter of Daldowie, sent me plants in April with many others to form a collection, and in the August following was himself much surprised to see the mass of bloom that remained. In short, it was a gem dwarf, sturdy and vigorous in growth, hence its great profusion in flowering. Bullion is one of the true tufted Pansies, spreading into verdant masses of green covered in the proper season with golden flowers. I think the back numbers of THE GARDEN will also bear witness to the fact that it was hardly ever without buds or blossoms in our Hampton soil. One instance in particular is still quite fresh in my mind. One February or thereabouts the entire stock of this variety and the autumn cuttings in particular were bristling with flower-buds, but there came a heavy fall of snow which hid them from view for some time. But the buds expanded into golden masses soon after the snow had gone.—E. J., Hampton Hill.

Clerodendron fallax.—This, one of the best of the shrubby Clerodendrons, is a native of Java, and is usually regarded as a stove plant, the fact that it will thrive in a much lower temperature being very generally overlooked. At Kew it is used during the summer in the greenhouse, and in such a structure not only are the flowers more appreciated than in a higher temperature, but they also last considerably longer. It is readily propagated, both by cuttings and seeds, and in its after culture the principal consideration is to obtain good sturdy plants that do not require stopping, but will each produce a large terminal corymb of scarlet flowers. Though no artificial heat is needed during the summer, in the winter an intermediate temperature is required. This Clerodendron is a liberal feeder, and thrives well in a mixture of two-thirds good fibrous loam to one-third well-decayed manure or leaf-mould, and a little sand. When well rooted weak liquid manure occasionally is beneficial. For plants carrying one head of flowers, pots 5 inches or 6 inches in diameter may be used, but larger specimens will, of course, require a corresponding increase in the size of the pots. A very fine Clerodendron belonging to this section is *C. myrmecophilum*, a comparatively new species, with orange-amber coloured blossoms. It is a native of Singapore, and was a short time since noted in THE GARDEN.—H. P.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Names of plants.—H. J. A.—The plants are: 1, *Kalosaurea coccinea*; 2 was quite withered; 3, *Lilium croceum*; 4, *L. Martagon*, but the flower had fallen to pieces; 5, *Escallonia macrantha*; 6, *Veronica spicata*; 7, *Lychnis coronaria*.—M. P. Forster.—*Lotus tetragonolobus* var.—S. H. B.—*Collomia grandiflora*.—E. B. S.—*Campanula rhomboidalis*.—*Belbroughton*.—The small flower is the polyanthus variety *Blanche Rebatel*, and the Tea Rose *Souvenir de Mme. Pernet*.—C. E. F.—1, *Acer Negundo*; 2, *Leukovda acuminata*.—T. B.—Your *Rubus* is a true species, *R. nutkana*, a native of North America. Seeds must have been carried by birds or by some other agency.—Mary H. Calvert.—*Alyseum argenteum*, *Dianthus viscidus*, the white woolly-leaved plant is *Stachys lanata*.

Lilium giganteum (M. P. BONAQUAT).—For the time being, or as soon as the flowering is over, all that can safely be done is to water freely either with clear water or weak liquid manure, such as soot and cow manure mixed

together in a coarse sack and placed in a large tub or water tank. The liquid from this may be given twice a week, and a good soaking each time. This will assist the offsets to develop fully, and may be continued as long as any green leafage remains. In early autumn dig up and divide the offsets, planting them to form a large group, say, of a ground area of 3 feet or more, depending on the number and size. It would be better to find a place apart from the old flowering site, and by deep digging, heavy manuring, and the like prepare a place for the young bulbs. It will largely depend upon the treatment these youngsters receive whether they will be three, four, or five years before reaching the flowering size. Some prefer to pot these small offsets, but it is not really essential to plant them out in spring.



PENTSTEMON VIRGATUS.

The only gain in so doing is the foliage may escape the late frosts. By planting in a well-nigh western exposure rear from frost is reduced to a minimum.

Pentstemon virgatus (M.).—This is a very interesting Pentstemon. Write to Mr. Smith of Newry about it.

Fertilising Malmalson Carnation Nautilus.—The fertilisation of Malmalson Carnations is not an easy matter, and it would not be safe to leave it to the agency of bees. As in all double flowers, pollen is very scarce, and it requires some care to fertilise by artificial aid. A small camel-hair brush may be used, the pollen collected on this and then applied to the stigmas of the flowers. Many flowers may have to be searched before much pollen can be found, and then in some flowers the stigma and ovary may not be perfect. The flowers must be quite dry when fertilisation is attempted, the best time to do it is about midday in bright sunny weather. The same flowers should be gone over several days in succession. Malmalsons are the most difficult of all Carnations to get seeds from, and with some of the varieties it seems impossible to get perfect seeds.

Carnation rust is a very difficult pest to eradicate; there are several preparations which, if used persistently, may effect a cure. Gribble and Reason's "Carnum," or Outram's "Carnation Disease Antidote" may be recommended. Either of these preparations may be obtained through most nurserymen, and full directions for their use are given with the articles. The compost for potting should consist of good fibrous loam and leaf-mould, to which may be added a little bone-meal and a good sprinkling of sand, or if the loam is heavy some fibrous peat may be added. Many growers use peat freely, but we have seen equally good results where the soil has consisted mainly of yellow loam. It should be made fairly firm when potting.

Lilium candidum disease (T. F. A.).—The specimen of *Lilium candidum* that you forwarded was attacked by the Lily disease, caused by a fungus known as *Botrytis cinerea*. Unfortunately, it has proved a most destructive pest to certain Lilies for the last few years. Any plants that are very badly attacked I should at once cut down and burn. Those that are not so badly infested should have all the leaves that show any signs of the fungus picked off and burnt. The plants should then be sprayed with sulphide of potassium (1 oz. in 2½ gallons of water) or Bordeaux mixture. The ground round the plants should also be thoroughly wetted with one of the above mixtures, and in the winter it would be useful to remove about half or three-quarters of an inch of the surface of the soil round the bulbs and bury it deeply. Keep a good look out next season for the disease, and as soon as the first signs of it are seen remove the affected parts and spray the plants.—G. S. S.

Tomato disease (T. LESTER).—Your Tomatoes are attacked by a fungus commonly known as the Tomato black rot fungus (*Macrosporium Tomato*). Gather all the infected fruits and burn or bury them. Then spray the plants with sulphide of potassium (1 oz. dissolved in 2½ gallons of water) or Bordeaux mixture. Keep the house well ventilated and do not force the plants too strongly. This pest generally finds its way into the fruit through some crack or wound in the skin. Another season as soon as the disease shows itself destroy the infected fruit, and spray with the above mixture every ten days, until there are no more signs of the fungus.—G. S. S.

Garden Roses.—Are the following Roses good hardy garden varieties, autumn bloomers, and free? Jeannie Dickson, Mrs. Cocker, Pride of Waltham, and Souv. de Mme. Verdier? Do you know anything about Robert Scott?—CONSTANT READER.—(Jeannie Dickson, Pride of Waltham, and the hybrid Tea Souvenir de Mme. Eugène Verdier are good autumn-flowering Roses. The two first are perfectly hardy, and the last named may be planted without hesitation, as it is an easy matter to earth up the base of the plant to protect it in winter. Mrs. Cocker is quite hardy, but is not a very good autumnal. Robert Scott is a grand Rose. It will surpass Her Majesty as a garden variety. The flower is not so massive, but the plant blooms freely, and every flower is so perfectly developed that it is sure to become popular.—ED.)

Roses with curled foliage (R. W.).—We believe this curling of the foliage to be attributable to cold nights followed by excessively hot days. It is intensified if there is dryness at the root. If the plants' requirements are seen what forestalled in this respect we think you would experience no trouble. Climbing Roses upon walls require more moisture at the root than Roses that are planted well in the open, and they should be watered at least once a week beginning at the end of May.

Making small shrubbery (N. O. O.).—The following shrubs would be suitable for your shrubbery. Of those you mention *Spiraea*, *Anthony Waterer*, *S. Indragens*, *S. media*, *Cytisus scoparius* and varieties, *C. albus*, *C. praecox*, *C. purpureus*, *Double Gorse*, *Lilac* in variety; also the following: *Rambling Roses* *Electra*, *Una*, *Crimes Rambler*, *Psyche*, *Helene*, *Pink Roamer*, *Mrs. Anthony Waterer*; also *Rosa rugosa* and varieties, and *Rosa spinosissima* and varieties, *Berberis vulgaris*, *B. stenophylla*, *B. Darwinii*, and *B. Aquifolium*, *Spiraea arguta*, *S. Thunbergii*, *S. Douglasii*, *Cotoneaster frigida* and *C. buxifolia*, *Cornus alba* var. *Spethii*, *Prunus spinosa* var. *fl.-pl.*, *Viburnum Opulus* var. *sterile*, *V. tomentosum* var. *plicatum*, *Myrica Abel Carriere*, *Aesculus parviflora*, *Ligustrum lucida*, *L. sinense*, *Rhus cotinus*, *Neillia opulifolia* var. *lutes*, *Pyrus floribunda*, *P. spectabilis*, and many other things.

TRADE NOTES.

A NEW CELERY CLASP.

MESSES. LAING AND MATHER, Kelso, N.B., have sent us a very simple contrivance for clasping Celery when earthing this up. Although so simple (it is just a spring metal clasp that may be closed so as to form a circle of either 3½ inches or 4 inches diameter) it will undoubtedly prove most useful and effective, and save a good deal of labour in the tedious garden work of earthing up Celery. The fastening of the clasp is effected by a stud on one end being adjusted into a notch on the other. Messrs. Laing and Mather say: "The purpose of the clasp is to avoid the tedious labour of tying. It is not necessary to clasp the whole row at once; one or two dozen may be clasped and earthed up at a time, and when these are done the clasps are drawn upward off the plants, unfastened and applied to the remainder."

MESSES. DICKSON'S SUCCESSORS.

WE are pleased to observe that Messrs. Dicksons, the old Chester firm, have recently been awarded three gold medals for superb displays from the extensive collections in their nurseries. Their exhibits formed chief features at the above, and the gold medals awarded were at the celebrated York Gala held last month; the Horticultural Fête in Hareley Park (Staffordshire), on the 1st and 2nd of the present month, and the Wolverhampton Floral Fête on the 7th, 8th, and 9th also of the present month.

* * * The Yearly Subscription to THE GARDEN is: *Inland*, 15s.; *Foreign*, 17s. 6d.

THE GARDEN

No. 1654.—VOL. LXIV.]

[AUGUST 1, 1903.]

DECORATIVE GARDENING AND HORTICULTURAL SCIENCE.

OUR excellent contemporary, the *Gardeners' Chronicle*, in the issue of the 25th ult., page 58, tells a somewhat woeful tale of our horticultural shortcomings, and the same opinion is held by many of the thinking men in this country. America is certainly "taking the lead in the development of scientific horticulture," but it is somewhat surprising to read our contemporary's opinion that perhaps that country may be considered to be also taking the lead in "decorative gardening." From what comes daily to our knowledge it is apparent that there is an extremely lively and intelligent interest taken in pleasure gardening in the United States. Important new gardens are being made and money is being lavishly spent, but for the most part the results show rather the tentative or experimental spirit than the sure hand.

A great effort seems to be made to secure decorative objects from Italy or of Italian design. In some of these gardens these have a strangely exotic appearance, as if they refused to be acclimatised. The happiest of these new gardens in which architectural features are introduced are those in which, following the traditions of the good eighteenth century houses, a restrained use of the Doric column and its accessories is made in piazza, pergola, and sundial-shaft.

We make plenty of mistakes of the same kind in England; indeed, the effort to be Italian, even in the best-designed examples, has about it something cold and uncongenial when it has passed through the Anglo-Saxon mind and is planted out in our climate. We, and those of our blood in the New World, can abundantly appreciate and reverence those great masters of garden decoration, whose gardens, even in their decay, we visit with humble admiration, but we should remember that in the Middle Ages decoration was a traditional craft in closest touch with all that was best in the fine arts. It was then in the Italian blood, and it came out in easy, almost unconscious practice, in a way that we can never again hope to attain.

We sympathise entirely with those who feel the strongest attraction to these various objects of ornamental art that were such fitting adjuncts to the old gardens of Italy.

But it is difficult to marry them to our northern gardens. These have other possibilities of delight and beauty that may be achieved without strain, and it is these simpler ways that we urge all garden-lovers to seek for and to practice.

Very true is it that "we must not delude ourselves into the idea that practical gardening and gardening amenities are everything, and that we continue to stand very high, and to take the first place in them." We hope devoutly that when the Horticultural Hall is an accomplished fact, the Royal Horticultural Society will devote itself to a garden for practical and scientific horticulture, as we believe is its intention. Our contemporary unkindly remarks that the trials at Chiswick are laughed at by the great commercial houses. This was not so in the time of Barron, and there is no reason why it should be so now under Mr. Wright, when the society has a garden in the country where experiments and trials can be conducted under greater advantages than exist in a suburb of London. The trials have been independent, and in a measure set forth the work of the hybridist in improving existing races.

We hope the day is long distant when the Royal Horticultural Society will give up its practical work, which has such a direct and important bearing upon one phase of the great horticultural industry. But we are in full agreement with our contemporary that the Royal Horticultural Society should in due time possess a scientific department of its own, now represented by the scientific committee, which seems to sit to answer a few commonplace questions addressed to them by the Fellows. Professor Beach's proposal that there "be organised a society for horticultural science to fully establish horticulture on a scientific basis" should not pass unnoticed in this country. We are proud of our practical work, and we should be equally so of the scientific aspect; but that is certainly not a matter upon which we can claim the "pride of place."

EDITOR'S TABLE.

We invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree,

shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London.

EMBOTHRIUM COCCINEUM.

Mr. Reuthe, the Nurseries, Keston, Kent, sends flowers of this brilliant plant with the following note: "This is undoubtedly the most beautiful of hardy or half-hardy trees or shrubs, but is at present still very rare. A perhaps mistaken idea is that it is difficult to grow and is not hardy. In a certain sense both assertions are true, though these difficulties can easily be overcome. In the first instance the great majority of the plants sold are raised in greenhouses, or even temperate houses, and are sold as small plants, which have no chance of ripening the wood sufficiently to resist the winters. It should be, however, planted in spring or summer. Put in strong plants which have not been grown in a greenhouse, and plant in good, well-drained, but not too dry soil containing humus, and well protect from cutting winds and sun. They are quite hardy in Cornwall and Devon, where the plants are grown to perfection. Even here failures occur, unless attention is paid to the position and the plants are from the small seedling state treated as hardy. There are plants in gardens in the North of London, at Hampstead Heath, and elsewhere, and, though planted in what I call a most unsuitable soil, they have stood several winters out of doors, and seem to be as hardy as *Euonymus japonicus*. In Cornwall, owing to the extraordinary mild winter of this year, they were in flower as early as March, and the wintry weather in April and May, though checking them, did less damage to the flowers than to Horse Chestnuts or fruit trees, and they are still here and there in flower at the time of writing (the end of July). Planted in suitable soil and position the plants grow rapidly, soon forming a tree 20 feet to 40 feet high. Straggling shoots are cut back or trimmed, and it bears this treatment as well as a Willow or Poplar. *Embothrium coccineum* has two forms, one with long lanceolate pointed leaves, bright or deep green, and trusses of bright orange-scarlet flowers; the other and better form is more compact, with more acute leaves and deep coloured dazzling scarlet flowers, slightly later. As they are difficult to move it is advisable to procure well-established, pot-grown plants, but grown out of doors."

HIMALAYAN RHODODENDRONS.

Mr. Reuthe also sends flowers of *R. cinnabarinum* with the following note: "Although in exposed parts of the northern and eastern counties of Great Britain it would not be wise to plant the early-flowering species out of doors without good shelter, the later-flowering Rhododendrons are quite safe when properly treated, and are as hardy as the hybrids. Care must, however, be taken to shelter them entirely from violent winds, especially north and east, and from the early and midday sun, and, like other Rhododendrons, they refuse to grow in limestone soil, but must have a certain amount of humus and be fairly moist without being boggy. Many species seem to grow well under tall deciduous trees intermixed with Pines in a half-shady position, and the falling leaves of these trees are a protection to the surface roots. The best time for transplanting is during

the months from September till March, but under favourable climatic conditions and position they can be transplanted the whole year round. The following are a few of the best of these handsome shrubs:—

Arboreum.—This makes a handsome, well-furnished bush, the foliage varying from bright green to pilose, either green, silvery, or golden yellow beneath, and with trusses of large, rosy, pink-red, whitish, or purple-coloured flowers.

Barbatum.—Bright green foliage, the stalks furnished with hairs, and large trusses of deep red or crimson flowers.

Aucklandi.—Very easily distinguished by its long, acute, light or pale green foliage and stalks, and large trusses of handsome white or white-tinged rosy flowers.

Manglesi.—A similar species, with white flowers tinged with a rose colour, and the interior of the upper petals spotted red.

Thomsoni.—This has thick ovate leaves, glaucous when young, and medium-sized crimson flowers.

Shiloni.—A cross between *R. barbatum* and *R. Thomsoni*, and one of the most showy of all *Rhododendrons*. It approaches more *R. Thomsoni* than *R. barbatum* in foliage, but the flowers are dazzling crimson.

Campylocarpum.—Small, light green foliage and medium-sized pale yellow flowers.

Cinnabarinum has almost the same foliage of a dull green, ferruginous beneath, and trusses of long, almost tubular flowers, orange tinged with bronze and tipped with pale yellow. It is one of the last to bloom, flowering from May till August.

Roylei.—This has ovate, bright, glaucous green foliage, especially when the foliage is young. From June till September the foliage is as attractive as the flowers, which are of medium size, deep crimson-purple.

Glaucum has small, glaucous foliage and pretty but small trusses of lilac flowers.

Falconeri.—A noble plant with immense leathery foliage, dull green and yellow, woolly beneath. The leaves sometimes attain a length of 2 feet to 3 feet, and are 3 inches to 5 inches broad, with large trusses of lemon flowers.

Excisum has the appearance of being only a form of *R. Falconeri*. The young leaves are woolly and cinnamon-coloured, and the large flowers pale yellow, tinged and spotted with purple.

Most of the above types flower freely and are easily fertilised by insects, producing some interesting forms.

DISA CLIO.

Those who visited the Royal Horticultural Society's Holland House show in June will probably remember having seen a remarkably fine hybrid *Disa*, shown by Sir William Smith Marriott, the Down House, Blandford, Dorset. Sir William has kindly sent us flowers of this new Orchid, which was raised in the gardens at the Down House. The blooms sent are large, the two lower segments are a rich rose colour, while the upper one is lighter. Each of the racemes sent bore three flowers. The parents of this hybrid *Disa* are *D. grandiflora* and *D. Veitchii*. We shall give a small illustration of it next week.

[Several notes are left over until next week.]

FLOWERING OF THE BAMBOO.

As the flowering and seeding of Bamboos in this country has recently attracted some attention, a note upon the subject may be of some interest at the present moment. In a Gloucestershire garden, where all the Bamboos known to be hardy are cultivated, several species have flowered during the last few years.

Arundinaria Simoni flowers and seeds every year, and is none the worse; *A. Laydekeri*, which is perhaps only a variety of *A. Simoni*, does the same. From both these Bamboos

ripened seed has been obtained, from which young plants have been raised.

Bambusa (Arundinaria) auricoma flowered sparsely three years ago; seed was not observed. The plants did not suffer. Last year and the year before *Phyllostachys nigra* and *P. nigro-punctata* flowered profusely. No seed was found, although careful search was made. All the culms which flowered died down to the ground. In one plant of *P. nigra* all the culms flowered and died, but this year new culms have appeared from the rhizomes, and the plant, though enfeebled by the vain endeavour to reproduce its species, has a healthy appearance, and looks like growing into its former stature in course of time.

Messrs. Rivière, in their monograph "*Les Bamboos*," cite similar behaviour on the part of *Arundinaria japonica* (Métaké) and *P. flexuosa*, and now from Ceylon there comes the news that the huge *Dendrocalamus giganteus* flowered two years ago and the culms apparently died. But it was no real death, for the same culms put forth leaves, feebly it is true, the following year, and are now in full beauty again.

It is evident, therefore, that botanists and travellers have been in too great a hurry in declaring that the Bamboo necessarily dies after flowering. Their observations were incomplete. It is quite possible that some of the caespitose Bamboos may find their death in seeding. Some are really annuals, and of course die when they have fruited. But all the evidence derived from close observation during these last years goes to prove that our correspondents, who write in so melancholy a strain, need not put on mourning every time that they see a sign of flowering in their cherished plants.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

August 3.—Lady Algernon Gordon-Lennox's Cottage Garden and Amateur Horticultural Competition at Broughton Castle.

August 4.—Royal Horticultural Society's Committee meet.

August 11.—Clay Cross Flower Show.

August 12.—Bishop's Stortford and Salisbury Horticultural Shows; East Anglian Horticultural Club Meeting.

August 19.—Shrewsbury Floral Fête (two days); Eastbourne Flower Show.

Royal Horticultural Society.—The next fruit and flower show of this society will be held on Tuesday, the 4th inst., in the Drill Hall, Buckingham Gate, Westminster, 1—5 p.m. Special prizes will be given for Cactaceous plants. A lecture on "Landscape Gardening" will be given by Mr. H. E. Milner, V.M.H., at three o'clock. At a general meeting of the society held on Tuesday, the 21st ult., thirty-six new Fellows were elected, among them being Lady Arthur Hill, Lady Margaret Cecil, Sir Philip Magnus, and the Hon. Gerald Ponsonby, making a total of 1,045 elected since January 1.

Jubilee of Messrs. J. Veitch and Sons.—In order to celebrate the jubilee of the establishment of a business in London (Mr. James Veitch, jun., having come to Chelsea in 1853), Messrs. James Veitch and Sons, Limited, have presented to the Royal Horticultural Society five silver-gilt cups of the value of fifty guineas each. This liberal offer has been accepted by the council

and the following conditions drawn up: The cup will be known as "the Veitchian Cup," and one will be awarded once a year to the best individual exhibit in the opinion of special judges at the Temple shows of 1904, 1905, 1906, 1907, and 1908, or any other leading show held under the direction of the society the council may determine. The successful exhibit may be either a single plant, a group, a novelty, or an example of culture. The cup will become the property of the winner each year, and he will be required to make a declaration that the exhibit is his own property, and has been cultivated by him for fourteen days previous to the show. The judges are to be seven—three amateur gardeners, and two nurserymen or seedsmen—to be selected by the council. No exhibitor can win more than one cup.

Exhibition of edible fungi.—On Tuesday, September 15, the Royal Horticultural Society will hold an educational exhibition of edible fungi in the Drill Hall of the London Scottish Volunteers, Buckingham Gate, Victoria Street, Westminster, and a lecture upon them will be given by Dr. M. C. Cooke, M.A., V.M.H., &c., at 3 p.m. All interested in extending or acquiring the knowledge of the edible species are invited to send collections. Collections should, if sent, be delivered at the Drill Hall, on Monday afternoon, September 14, or, if brought, should arrive at or before 9 a.m. on the Tuesday, so that they may be properly grouped and arranged by the fungi specialists. Collections should consist of any fungi supposed to be edible. Each specimen should be wrapped separately in thin or tissue paper, and packed so as not to get loose or shaken in transit. When the names are known by the senders they should be neatly written on a card and enclosed, but if not known they will be named by the experts. The society will pay the carriage of all collections and will award medals according to merit. The best collection will be considered to be that which includes the largest number of edible species shown in the best condition. When the senders are doubtful as to whether any of the specimens are edible or not the matter will be determined by the experts. Unnamed collections will also be examined, named, and sorted into edible and poisonous by the experts as far as their time will permit. All specimens will be destroyed at the close of the meeting unless removed by the senders. Intimation of an intention to exhibit should, if possible, be sent a few days before to the secretary, Royal Horticultural Society's Office, 117, Victoria Street, London, S.W.

The new curator of the Birmingham Botanic Gardens.—I was very pleased to read your kindly note in last week's GARDEN about the new curator of the Birmingham Botanic Gardens. It is always a delight to find men of Mr. Humphreys' quiet disposition and sterling worth recognised in an age of bustle and much wasted energy. The Royal Horticultural Society loses by his departure, and Birmingham gains, and I hope the new curator will place the gardens upon a firm botanical and scientific basis. His knowledge of exhibitions will stand him in good stead, but Mr. Humphreys' work in the arboretum at Kew as the propagator of trees and shrubs must not be forgotten. As you say, the Birmingham committee have made a "wise selection," and I hope, in face of the difficulties I am told that have to be encountered, he will have the support and sympathy of those who control the finances of the garden. —A. [We are glad to print this letter from one of the new curator's old friends. We have ourselves profited much by Mr. Humphreys' knowledge of trees and shrubs. As we said last week, he has our heartiest goodwill in his new office. Mr. Humphreys is thirty-five years of age. He began his new duties on October 1.—Ed.]

Strawberry Eleanor in July.—This is still the best late variety we grow, but at the same time it is by no means of first-rate flavour. It is also known as Oxonian, and must have been grown many years under the latter name, as I found it was very well known in the West of England under that name at least twenty-five years ago. After trying most varieties for a late

apply we still have to rely upon this. The plant bears very fine fruits and is a heavy cropper; it continues to give successional crops, and, though a little acid in flavour, it is not inferior. No one can compare it with a British Queen, but how few grow the last-named to perfection, and in this respect the same remarks apply to Laxton's Latest of All and some of the Pine varieties; they are not late enough in some cases, and in others the soil is not suitable. Eleanor is a very hardy variety, a free grower, and may be relied upon in poor soils. I once saw it grown in cold frames and never saw such a splendid crop in June; but my note only concerns its value for last supplies in the open ground. The plant needs ample space owing to its free growth, and it certainly greatly extends the Strawberry season.—S. H.

Defiance Cabbages.—It is to be regretted that seedsmen multiply duplicate names for varieties of such useful and comparatively permanent things as some vegetables are. A correspondent last week referred approvingly to Daniel's Defiance Cabbage. I have not grown it, but have heard of it as a rather large variety. I have grown frequently and have often seen Cannell's Defiance, which has been with me one of the most perfect of all Cabbages, not large, but quick hearting, medium sized, and very handsome. For two years I grew this Cabbage on trial plots for manures at Surbiton, and in each one of the seven plots it was first-rate, and by the allotment holders greatly admired. This year I have for the same purpose London Market and First and Best, both out of a London market garden. These are larger, much more leafy and irregular, and much inferior to Cannell's Defiance. We do not want large Cabbages in gardens. They are too leafy and need so much cooking to soften them for table. It is to be wished that names of all vegetables should be dissimilar that mistakes as to varieties may be avoided.—A. D.

Preserving Strawberries.—I am glad to see that these still hold their own wherever their merits are known, and are of far greater value for preserving. I recently saw some acres of the "old scarlets" as they were termed, which the grower told me were far more profitable than large sorts, as one firm secured the crop. This is not much grown in private gardens, but it is a splendid cooking fruit; it retains its shape, and has a distinct Pine flavour, but it is only fair to add that many gardeners grow the well-known Vicomtesse H. de Chury, as the first fruits may be used for dessert and the second sized fruits for preserving; the jam is a rich colour, and the fruits remain whole. This variety rarely fails to crop freely even in adverse seasons. I am aware many mix their Strawberries and preserve large fruit, but the jam bears no comparison to that produced from the smaller sorts, such as Grove End Scarlet or Vicomtesse and other small fruited of the Pine section. In most gardens it would well repay to grow a quarter or preserving alone. The older generation of housekeepers who prided themselves on their jams would, I know, make short work of the large soft fruits now so often made into jam, and often, to give colour, added Red Currant juice. The preserve was very fine.—G. WYTHES.

Railway station flower gardens. How often when travelling have our eyes been delighted with beautiful glimpses of flowers, and now we have noticed capital sites for flower gardens at countryside stations unoccupied for want of someone to move in the matter. Our station at Great Glen (Midland Railway), near Leicester, afforded a good opportunity of embellishment. The line runs north and south, and the wayside station is in a shallow cutting, the whole length of the platform being bounded with a close wood paling, hiding the grassy bank behind it. After some correspondence the railway company kindly removed the fence and sent many loads of stone slag and trucks of earth to the station. I was able to direct operations, and with my gardeners built sloping out crops of rock to imitate strata so as not to offend the geological eye, while keeping the bank up and forming terraced beds, which were filled in over the red clay with good soil. The station-master, who is an enthusiastic lover of flowers, and the porters

all gave a hand, and the result is a very creditable rock garden. We took the turf off and laid out the whole of the sunny south bank, but the north shady bank we only half stripped of the turf and put the rocks at the bottom and ends only, as it made too much garden for the station-master to look after. Several of the gentry round took an interest in stocking the garden, and sent quantities of herbaceous roots. We find that masses of flowers of one colour are most effective, and although the bank is rather hot and dry, yet the flowers give pleasure to travellers. Crocus, Daffodils, and Tulips in spring, Wallflowers in masses, German Iris, Pansies, Campanulas, Poppies, Veronicas, Sedums, and a host of herbaceous flowers made the banks gay. A rather effective display of flowers is seen at the next station, Wigton, the station before Leicester. A clay bank has been thrown up to hide the railway from the house, and small bushes of Gorse and a few Brooms were planted. The spaces between were scattered with Poppy seeds mixed. The multitude of Poppy flowers—scarlet, pink, and other shades—have been very beautiful and worthy of imitation. When travelling through Norfolk lately I could not but notice the masses of Broom growing naturally on the railway banks. The light soil of Norfolk suits the Gorse, but our red clays are too cold. Our banks just now are gay with the white Dog Daisy, and occasional patches of yellow Trefoil. What a great pleasure it would give to travellers if our railway banks were rendered more ornamental by masses of strong-growing wild flowers! Masses of Primroses sometimes delight the eye in spring. If we had similar masses of summer flowers it would add greatly to the beauty of the railway banks. In some parts Gorse and Broom seed could be scattered, in other parts Forget-me-not would look well. Mixed Poppy seed, Valerian, or Foxglove would thrive well, and a host of other seeds could be tried according to soil and situation. The consent and aid of the railway companies must be enlisted, and care must be taken not to interfere with the view of the signals; but I think there is a great opening for beautifying our railway banks and adding to the interest of railway travel. If the matter is thought of sufficient interest perhaps others would give some further advice in THE GARDEN.—THEODORE WALKER, F.R.G.S., *Glen Hall*.

The season in India.—This year has been an exceptionally favourable one for fruit generally, but for Mangoes in particular. The Calcutta market is flooded with all sorts of Mangoes of very fine quality such as we have seldom seen. The delicious Langra Mango is very abundant, likewise the Bombay, the Kishenbhog, and many others. What we call the "hot season," which extends from March to June, and which has now terminated on the arrival of the monsoon, has been a record one in many respects. Plant life in lower Bengal generally, and in Calcutta gardens specially, has suffered much. It has been one of the hottest and driest on record, resembling the dry, hot season of North-West India, with its hot winds. In the Royal Botanic Gardens, Calcutta, the mortality among plants, both in and out of doors, has been very great, many rare and valuable plants having perished.—*Indian Planting and Gardening*.

Sweet Pea Dorothy Eckford.—This is a beautiful new variety, quite eclipsing all the other white sorts now in commerce. From eight seeds I have two grand clumps, and the flowers stand out above all other white varieties. The plants grow away freely, and, as evidence of their robust growth, they are developing quite freely, on long, erect flower-stalks, flowers of large and handsome proportions. No one who has seen or grown this new sort will have the same regard for Blanche Burpee or Sadie Burpee that they have had since those sorts were first distributed. The new sort is bound to supersede the older ones in popularity. The tops of my plants were propagated some time ago, and they are now beginning to bloom.—D. B. CRANE.

Humeas affecting Peach trees.—For the past three years we have noticed a disease-like effect on some Peach trees grown in a case, in

which there has also been grown for some period a batch of Humeas. Several theories have been advanced as to the cause of this mischief, fumigating, insecticides, bad stocks, and several other things having been mentioned as the cause. This year insecticides have not been used, but still the same effects are visible. It occurred to me whether the Humeas had anything to do with it, so we placed some plants in several different houses in contact with the Peach trees, and the results have all been identical. The effects are first noticed by the curling and browning of the young leaves, similar to the results of a scald. The browned patches eventually drop out, leaving the leaves perforated with holes. This must undoubtedly injure the prospect of a successful crop the following year. It would be interesting to know if any of your readers have had similar experience.—E. HARRIS, *Frogmore*.

Crossandra undulæfolia.—When first distributed by the late Mr. William Bull, of Chelsea, in 1881, this Crossandra was known by the specific name of *infundibuliformis*, which has now fortunately given way to the shorter and more convenient *undulæfolia*. It belongs to the order Acanthaceæ, but, though the arrangement of the flowers is a good deal in the way of many of its allies, in colour they are most conspicuous. This Crossandra makes an erect, half-shrubby growth, the upright stems being clothed with ovate acuminate leaves about 6 inches long, and of a deep shining green, with the wavy edges. The flowers, of which a continual succession is kept up from a terminal spike, are about an inch across, and of a rich orange salmon tint. Individually the blooms do not last long, but from the great number borne in succession from a single spike, its season of flowering extends over a lengthened period. Like most of its allies, the *Eranthemum*, this Crossandra cannot be flowered very freely when dwarf, as the pinching necessary to bring this about causes weak growth, and the object is to ensure good sturdy shoots, which bear the largest clusters of flowers. Cuttings strike root readily anywhere during the growing season, and a suitable compost for the plants is equal parts of loam and leaf-mould, with a good dash of sand.—H. P.

Helianthus Nuttallii.—The earliest Sunflower in English gardens is *H. Nuttallii*, and, as such yellow composites are estimated, it is fairly good as an ornament, not being exacting in its requirements. It grows about 3 feet high, with stems sufficiently pliable and substantial to resist the gales and rains of the last month in an exposed situation without tying. The flowers are golden yellow, 3½ inches across, and have about fifteen rather broad rays. The leaves are about 4 inches long, lanceolate, with a short winged petiole. It comes into flower at the end of June and lasts till September. The habit is running, but it is very easily restrained within bounds. It is a much better plant than *H. decapetalus*, which it might replace with advantage as an earlier flowering improvement. My stock came direct from Wyoming, and has been carefully verified.—C. WOLLEY DOD, *Edge Hall, Malpas*.

Glasgow and West of Scotland Pansy Society.—The annual exhibition of this society was held in the Trades Hall, Glasgow, on July 22. The competition was very keen in the Pansy and Viola classes. The chief prize winners were Messrs. Lister and Sons, Rothesay, who were first for forty-eight blooms and for six blooms of fancy Pansies; Mr. Charles Kay, Gargunnoch, was first for twenty-four blooms, for twelve blooms of fancy Pansies, for eighteen show Pansies, and six show Pansies; Mr. A. Allar, Campbeltown, was first for twenty-four show Pansies, twenty-four sprays of Violas, twenty-four blooms of Violas, a spray of Violas, and he also had the best show Pansy in the hall. Messrs. J. Johnstone, J. Sweeney, and J. Kirkwood were also among the prize winners. Messrs. Dobbie and Co., Rothesay, had a very fine exhibit of Pansies, Violas, and Roses.

Sweet Pea Lord Rosebery.—This is another new variety that deserves special notice, and only needs to be grown and compared with

other Sweet Peas to be appreciated at its proper worth. With so many other good things in general cultivation, I must confess that this new sort was taken in hand with a certain amount of prejudice in the spring of the present year. The plants are now making a display of which any grower may well be proud. The plants are growing strongly and developing handsome sprays of very large size flowers, with three flowers as a rule on each spray. Either for garden decoration or as cut flowers for vases, the flowers of this variety have a special charm, and for use under artificial light, more particularly when contrasted with some of the white Sweet Peas, their self-coloured rosy magenta blossoms are most effective. This variety may be regarded as a distinct acquisition to the already long list of named sorts, and should easily displace other older and less popular varieties.—D. B. C.

Tacsonia insignis.—This is conspicuous among the generally cultivated forms of *Tacsonia* by reason of the leaves being simple, or nearly so, instead of lobed, as in most of the others. These leaves are about 6 inches long, dark green above, and, in common with the young portions of the shoots, clothed on the undersides with a rusty tomentum. It is a native of the Andean region of South America, and, like many plants from that district, frequently fails to give satisfaction here, owing, probably, to the too dry atmosphere. Red spider are very frequently a source of trouble, and if unmolested they will often kill the plant, or, at all events, reduce it to such a state that it cannot recover. Having met with it so often in poor condition, I was extremely pleased, during a recent visit to Kew, to find it in a thriving state, and bearing several of its large pendulous violet-crimson blossoms. The specimen in question is planted out in the Mexican portion of the temperate house, where it is, apparently, quite at home. *Tacsonia insignis* is also interesting as being one of the parents of the comparatively new hybrid—*T. militaris*.—T.

Notes on the Agapanthus.—The African Lily (*Agapanthus umbellatus*) was introduced over two centuries ago, and still holds its own as a universal favourite. This is to a great extent owing to its accommodating nature, its free-flowering qualities, and the pleasing tints of its blooms, for those of a decided blue colour are always admired. In the favoured districts of Britain it is quite hardy, and even where this is not the case it may readily be wintered under the stage of the greenhouse if free from drip, or in a shed or frame, provided it is just safe from frost. Large masses in pots or tubs are very striking when placed during the summer in a prominent position, such as on a terrace or flanking a large flight of steps. It readily seeds, and individual forms have at one time or another been selected. The varietal names of *giganteus* and *maximus* have been applied to a selection from the type, but some individuals at least bearing one or other of these names are indistinguishable from the ordinary *A. umbellatus*. Some well-marked varieties are *A. u. albus*, a very fine *Agapanthus* and a good companion to the type, that is, if the best form is obtained, for there is a considerable amount of difference between plants bearing the varietal name of *albus*, as some have a light bluish tinge. One form, too, retains a few of the central leaves during the winter, as *A. umbellatus* itself does, while the other is quite leafless. *A. u. flore-pleno*: This has never borne out its early promise, for, though the flowers are unquestionably double, they do not open properly, added to which the plant loses in dignity by the shortness of the flower-stem. *A. u. minor*: As generally met with, there is little if any difference between this variety and *A. mooreanus*, though both names occur in most lists. It forms a low-growing tuft of narrow dark green leaves, but the scape is taller in proportion to the size of the plant than any of the others. The flower-head is almost globular, while the blooms themselves are deep blue. This *Agapanthus* becomes totally dormant in winter. There is a variegated leaved form, in which the narrow foliage is freely striped with white. It is an old plant in gardens, and is, by the way, nearly always met

with as *A. umbellatus variegatus*, though the small foliage and other particulars stamp it as clearly belonging to the minor section.—H. P.

FLOWERS THAT ATTRACT BUTTERFLIES.

THIS presupposes that there are butterflies to attract, as early rains and birds sometimes make butterflyless the most flowery garden. The robin is the worst offender; if a butterfly flutters by he invariably chases and snaps it up. Butterflies may be said to be attracted by all flowers, but they pay flying visits to some, having a predilection for others; and if a plot of ground is planted with their favourites, not only do they come in greater numbers, but they may be seen playing about in the same spot for an hour or two instead of for moments. This is a great advantage to anyone wishing to study their habits. As has already been stated in THE GARDEN, the Scabious is especially favoured. A few years ago Scabious were planted in a south-west corner of a garden seven miles from London Bridge. When the plants flowered several Red Admirals, a Painted Lady, the small Tortoiseshell, and a Peacock butterfly used to congregate together sipping honey from the flowers. These four butterflies may be safely encouraged in a garden, as in their caterpillar stage they only feed upon Nettles. Red Admirals are sociable and soon get accustomed to being watched; they are also fond of the large purple-flowered Teasel. A bed of Zinnias is another lure for butterflies; in this instance bright colouring, not sweetness, attracts them. The Marigold is a great favourite. Verbenas and the tall and dwarf Phloxes have their share of attention. Willow and Privet blossom, Viper's Bugloss, Petunias, and Nicotiana have a great fascination for butterflies, and also for those beautiful insects the day-flying Burnet and Hawk moths. A Hawk moth never visited the garden near London until Nicotiana was planted in it. Like the Evening Primrose, there are always some blossoms out by day, although both plants look shabby until evening. In Cornwall numbers of Humming-bird Hawk moths were noticed swarming about a Honeysuckle bush.

Long ago, in an old-fashioned garden by the River Thames, it was a child's delight to watch thick-bodied, greyish brown moths hovering by day about the Sunflowers; "Bee moths" the gardener called them. Man must necessarily be ignorant about mysterious insect life. Much that is written in books is mere conjecture, and personal observation is fallible. This is a preamble to the assertion that butterflies sleep upon and also get drugged by certain flowers like the Hollyhock and the Lilac. A branch of Lilac was picked, and on one of the flower clusters reposed the small white butterfly. It was placed in a jar standing near an open window without disturbing the butterfly, which was at liberty to fly away when it liked. Two days afterwards the butterfly was still in the same place, when it was gently lifted off and put on the window-sill. It staggered over on to its back. However, in the end it recovered. If it had been caught prisoner by sticky juice it would surely have been able to flutter its wings.

It would be interesting to know the name of the yellow flower in the poet Wordsworth's verse:

"I've watched you now a full half hour,
Self poised upon that yellow flower;
And, little Butterfly! indeed,
I know not if you sleep or feed,
How motionless!"

A far older poet than Wordsworth has so accurately noticed the plants that please

butterflies that, except for the quaint spelling and the Roses reigning in May (which shows that it was written before the introduction of the "New Style"), the words might be supposed to have been written by one of the garden lovers of to-day instead of in the year 1590:

"The wholesome Saulge, and Lavender still gray,
The Roses reigning in the pride of May.
Sharp Hyssop, good for green wound's remedies,
Fair Marygolds and bee's alluring Thyme,
Sweet Marjoram and Daisies decking prime;
Cool Violets, and Orpine growing still,
Embothed balm, and cheerful Galingale,
Fresh Custmary, and breathful Camomill,
Dull Poppy, and drink-quick'ning Setuall,
Vein-healing Vervain, and head-purging Dill,
Sound Savory, and Basil hearty-hale,
Fat Colwort, and comforting Fennelline,
Cold Lettuce, and refreshing Romaine."

W. SPURLING.

TREES AND SHRUBS.

FLOWERING OF BAMBOOS.

RECENT communications made to *La Revue Horticole* concerning the flowering of Bamboos, and especially *Arundinaria Simoni*, are corroborated by other observations which have been made during several years. But these observations may be supplemented by some details which are not commonly known. For example, for several years past I have seen my *Bambusa Simoni* at Lacroix flower, yet they do not die, though they suffer a little. I have one large sterile plant with leaves of a beautiful deep green whose central stems are more than four metres high and form a tuft of more than four metres in diameter, which does not show the least inclination to flower, yet not far from it a plant propagated by separating from the large tuft, planted by a wall facing north, is, on the contrary, covered with flowers on almost every stem. I have myself ascertained that the roots of Bamboos which have flowered in different parts of France came from the same source, although they were of various sizes and planted under very dissimilar conditions, and these all flowering together also died at the same time; but these were not *A. Simoni*, though I do not know which.

These fatal flowerings are very rare, even with plants growing wild. I remember passing through whole forests of Bamboos when descending the western slope of the Quindio, in the Andes of New Granada, and after riding hours under the shade of their immense stems I did not find a single tuft which had flowered and then died from this effort. The plant which is now in bloom at Lacroix is doing well, and I think will suffer but little from flowering. The inflorescence varies considerably. Near the base, and sometimes in the middle of the spikes (rarely at the top), large green and brown berries are produced, and take the form of an enlarged grain of Wheat. The stems, which had not time last year to form branches before the cold weather, and which remained bare as fishing-rods, have also flowered and seeded.

M. A. Houzeau writes from Mons, Belgium, that for several years past he has grown this Bamboo in the open air, and that he has seen it blossom during the spring without appearing to suffer. In 1902 he even obtained some seeds from this Bamboo, two of them germinated and produced two young plants. He has also just verified the appearance of a small spike of male flowers on *B. aurea*. While notifying this interesting fact, M. Houzeau adds the very true observation that it is astonishing thus to prove the hardihood of certain Bamboos in the open air in Belgium, where the climate is, relatively speaking, severe. He possesses a dozen species of which he has kept some for eighteen years without any shelter. Near Namur another amateur, M. Dion, has collected thirty-five different species, among them *Phyllostachys nigro-punctata* and *Bambusa Metake*, which have flourished for several years. But one must be sure of the identity of these cultivated Bamboos, and the task is not easy. It would be

more easy in France where M. de Castillon in the south, and M. Latour-Marliac, the celebrated grower of Nymphæas, have collected many species, which, thanks to the heat of the summers, rapidly attained the adult state. By help of the works of Munro and of Rivière, tolerably exact determinations can be obtained, and then we shall be able to say exactly which are the species that will grow in the open air in Belgium and in the north of France. In order to facilitate this enquiry we should be glad to receive from our readers an account of the observations they have been able to make. They would render a service to many amateurs who are desirous of having Bamboos in their parks or gardens, but do not know how to obtain them with certainty.

ED. ANDRÉ, in *Revue Horticole*.

THE TULIPAS.

(Continued from page 42.)

TULIPA PHORANIDEA (Boissier) is a Grecian plant bearing small pointed yellow flowers, flushed carmine externally, and furnished with a black basal blotch. A lemon-yellow and an orange-yellow form are often found in collected bulbs. A pretty plant for rockeries, succeeding under treatment noted for *T. clusiana*.

T. ostrowskyana (Regel) is a slender growing but very brilliant and graceful species from Turkestan. It has narrow, channelled, lax leaves; stem, 1 foot to 2 feet high; flowers intense vermilion-scarlet shading to a yellow base externally and to a small black eye internally. The inner petals are much the widest, but all are pointed and reflex on expansion. It is an exceptionally refined flower, some 5 inches in diameter, the surfaces being very lustrous, and their substance, though thin, is capable of standing much bad weather. It is too tall a plant for rockeries, and one would recommend it for the warm border, and that it be lifted to ripen. It is one of the best Tulips of its class, well worthy the little attention it requires. April.

T. persica.—A pretty but variable species inhabiting the mountain ranges of South-western Europe, known to all the world under this name, but more rightly called *T. australis* (Link), and also known as *T. breyniana*. The type plant grows 6 inches high and bears branching ruddy stems, yellow star-like flowers 2 inches across, with no basal blotch whatever. The exterior of the flowers is entirely covered with a reddish copper colouring, a production of strong sunshine, for the flowers are pure yellow in shade. The flowers are nodding; in fact, lay on the ground in a bud state, lifting themselves erect to open. They have a delicious Primrose fragrance. Its cultivation is simplicity itself. A border as hard as a roadway or a dry rockery slope with no subsequent attention whatever will prove all sufficient to grow it well. It dislikes cultivated soil, and will thrust its newly formed bulbs deeply into a harsh subsoil if the upper stratum is cultivated.

T. planifolia (Jord.).—A bold border Tulip, from Savoy, of gesneriana type, with broad, stout, channelled leaves on stems 2 feet high, and crimson-scarlet flowers of large size with rounded petals, furnished at the base with a blue-black eye, a few flushes of yellow dividing the two colours. The plant likes a warm situation, but otherwise may be treated like the rank and file of border Tulips.

T. platystigma (Jord.) is a South European plant well known in cultivation as the "rouge," to which many garden-raised, late-flowering Tulips revert. It is a robust plant of medium size, with flowers coloured a dull shade of salmon-rose, paler near the margins externally, and tinted apricot near the ill-defined yellow

base internally. It is not popular as a border plant, but when detected as a "rouge" among garden Tulips it should be cherished and seeded—not thrown away. The potentialities the plant has gathered in its course through a series of generations and in various beautiful guises, and which merely await the process of reproduction by seeds to develop either singly or in startling combination, is a wealth to be reckoned as infinitely greater than that possible to obtain by cross-fertilisation of species or the weary wait for sports. The man who laments the presence of this potential "rogue" among his Tulips, and who straightway pulls him out as a vulgar "revert," should rather welcome it as a means of increasing his riches in these beautiful garden plants.

T. præcox (Tenore).—Another European plant more generally known as *Oculus solis*. It is a strong growing, very early species, with somewhat coarse flowers, the petals of which are pointed, 4 inches long, broad below, coloured crimson with black base reaching nearly halfway up the petals. Its chief value is in its earliness, but with so many choicer Tulips in cultivation it is not worth general attention; *var. Damnuni* is the best form.

T. prestans, a new Tulipa from Bokhara, is of the highest possible excellence. It is dwarf, with very broad glaucous leaves covered with a multitude of short silky hairs. The flowers range in number from one to three, they are coloured light scarlet, of the size and shape of the familiar Duc Van Thol group of early flowering Tulips, and there is no basal blotch. The buds as soon as seen peeping through the sheathing leaves are just as richly coloured as the expanded flowers. Without doubt one of the most valuable introductions of recent years. It makes a very effective rockery plant, and seems satisfied with just ordinary treatment. It flowers simultaneously with *T. kaufmanniana*. In general character and in its hairy leaves it shows kinship with

T. suaveolens, from the Crimean Peninsula.

T. primulina is a dwarf slender species, the native habitat of which is unknown to me. It has lax, narrow leaves as long as the stems, and white or creamy tinted flowers, coloured a pale primrose-yellow at the base and flushed with ruddy bronze externally. It is a neat and pretty species, resembling in habit of growth, shape of flower, and pleasing Primrose-like fragrance the native *T. sylvestris*. It

requires a warm exposure on a rockery slope, and it only expands during very warm sunshine. April.

T. pulchella is a dwarf Cilician species, resembling *T. Lownei* in size, habit, and shape of flower. It is coloured a pretty shade of crimson, flushed externally with green, and furnished at the base with a small eye of blue colouring. March, April. Cultivation as for *T. Lownei*.

GEO. B. MALLETT.

(To be continued.)

NOTES ON HARDY PLANTS

IVY-LEAVED PELARGONIUM

MME. CROUSSE.

OF course in most parts of the British Isles the Pelargonium is not hardy, but it lives out unharmed in the Isle of Wight, and therefore justifies a place under the above heading. The photograph of which we have made an illustration was kindly sent by Miss Evans, Belgrave View, Ventnor, last week. The house faces south, is sheltered from the east, and the plant was put in nearly four years ago when it



IVY-LEAVED PELARGONIUM MME. CROUSSE IN A VENTNOR GARDEN.
(It was planted four years ago, and has been in perpetual bloom since.)

was from 10 inches to 12 inches high. It has never been without a flower for two years, even in winter.

TROPEOLUM POLYPHYLLUM.

If Mr. Arnott will be good enough to add a few handfuls of mortar rubbish to the soil, *T. polyphyllum*, *edule*, and *Leichtlinii* will grow like weeds. Here bulbs the size of large Kidney Potatoes are obtained from the crevices of a mortar-built wall, where they nestle in the decaying mortar.

Baden-Baden.

MAX LEICHTLIN.

GARDENING IN SOUTH INDIA.

A BUNGALOW AND ITS GARDEN.

GARDENING in India, except for planters or retired officers who have settled down in a pretty little estate on the hills, and can lay out their gardens with an eye to permanent effect in the course of a few years, is by no means an unalloyed pleasure. True, in the spirit of the motto chosen by Mrs. Temple Wright for her charming little brochure on Indian gardening, the lover of flowers will always try to beautify the surroundings of the house in which he sojourns during his migratory existence in that land of exile, "*Sic vos non volis mellificatis apes*," and although it is a proverb among Indian officials that if you want to make sure of being transferred to a distant place, you have only to set about laying out a nice vegetable garden, by the time the produce is ready the inner man of the luckless designer of that garden will be languishing on native-grown vegetables several hundred miles away from his cherished garden, and a "wise man," who probably does not know a Turnip from a Beet, except on the table, will be enjoying the labour of the industrious "fool" of a horticulturist. Yet, fortunately, things grow so fast during the six months of the rainy season, from July to December (this includes the break between the two monsoons), that one is encouraged to do one's best in the way of gardening, and not to feel that as far as one's own enjoyment is concerned one's labour will necessarily be thrown away.

I was fortunate in being transferred to my last station in February, 1902, and in finding myself the temporary possessor of a fine old-fashioned bungalow, with a large park and the makings of a very good flower and vegetable garden. Nothing much could be done in the way of planting till the rains begun in July, but in the meantime I had plenty of time to get things in readiness and plan out all my beds and borders. My predecessors had not been very keen amateur gardeners, and, as is usual among English officials in India, most of the garden flowers were grown in pots, these being an available asset at the time of transfer of occupancy. I engaged half a dozen strong native ryots, who thought themselves well paid at the rate of 10s. a week divided among them all, and who laboured cheerfully from eight to ten hours a day, and soon picked up a very good idea of "master's" wishes. One rarely had to tell them the same thing twice. With temporary coolies to aid in ridding the garden of Spear Grass, weeds, jungle shrubs, and that sure visitant on neglect, the prickly Pear, and, incidentally, of dozens of snakes, from the giant but harmless rat-snake to the tiny but deadly viper, I soon had the surroundings of the bungalow in very good order. The park was full of beautiful specimen trees. Bunyans

of immense girth, with myriads of scarlet berries loved by birds, and long air-roots, which in many cases on descending into the soil had grown into trunks, propping up the aged tree, whose main stem, after having done duty for so long, was fittingly supported by the younger generation; Tamarinds of dense shade, and covered in due season with Nut-like fruit, so indispensable for curries; Flame of the Forest, trees of giant size, covered during the hot weather with a blaze of vivid scarlet like a sea of blood; and the Frangipani Tree with its wealth of sweetly-scented flowers, creamy white, with orange throat, filling the air with perfume for many hundred yards. The drives were widened and neatly edged, and pretty winding paths cut out about the grounds. Beds and borders were planned and excavated near the bungalow, and channels made leading from a fine tank as big as a small lake, and flowing into concrete reservoirs cunningly hidden in different spots about the flower garden.

The vegetable garden was irrigated by direct flow from these channels into the beds, but the flower garden was watered from the reservoirs by hand. All the plants in pots—*Crotons*, *Roses*, *Amaryllis*, *Tuberoses*, *Caladiums*, *Eucharis*, *Crinums*, *Dracenas*, &c.—save a few, were planted out at once, the pots being broken round them so as not to disturb the roots. Although the heat was most trying—100° to 112° by day from March to June, and the rain held off, except for occasional thunderstorms—these plants grew apace. They were, of course, watered daily. Beds were prepared with a view to growing masses of *Hibiscus*. These had distant shade of trees, save when the sun was right overhead midday, so that the soil was kept fairly moist and cool, while the plants got enough of the brilliant sunshine to make them flower well. Borders were prepared round the bungalow for climbing plants and annuals with an edging of bulbs. In front of the bungalow a large central garden was fenced in with a Bamboo hedge. This garden was entered by a long covered archway opposite the house, and was filled with flowers and climbers. A large octagonal summer-house was built of split Bamboo, and beds prepared round it for climbers, while inside brickwork stages were erected for *Ferns*, *Eucharis*, *Lilies*, &c. An abundance of large stones and pieces of rock was collected for rockwork. Pergolas and screens of immense Bamboos were erected (these only cost a few pence each, and are as large as small masts), and the kitchen garden was surrounded by a Bamboo fence to supplement the somewhat gappy hedge. In July the welcome rains began, and the beds and borders were rapidly filled with plants from the Agri-horticultural Society's Gardens, Madras. The verandah of the bungalow was filled with *Ferns* of all kinds—*Palms*, *Dracenas*, and *Caladiums*—in some of the largest leaves of which little Indian birds wove their nests.

The house was covered with climbing plants by Christmas, chiefly with the pretty and rapidly growing *Quisqualis indica* (Rangoon Creeper), of which I am so fond. This lovely climber is covered with sprays of flowers, white on opening, but by evening darkest crimson, and very sweetly scented at night. The summer-house, arch, pergolas, and screens were soon a mass of leafage and flowers, being overgrown with fine specimens of the following climbers: *Thunbergia alata*, *T. grandiflora*, *Solanum seaforthianum*, *Aristolochias* of sorts, some with giant flowers, but with what a native apothecary called a "post-mortem smell" (these, needless to say, were not near the house); *Passifloras* in some dozen kinds, the

lovely trumpet-flowered *Beaumontia grandiflora*, *Allamanda Schottii* with immense golden blooms, *Lonicera Leschenaultii*, *Jasmines* and *Bignonias galore*, and everywhere a gap appeared, owing to slow growth, the space was soon filled with *Jacquemontia violacea* with its bunches of tiny blue *Convolvulus*-like flowers, and *Ipomoea Leari*, an immense Morning Glory which spreads so by runners, like Strawberries, that out of three plants I made some thousands, and covered the whole fence round my large kitchen garden with them. The channel banks were turfed and planted with red and white *Vincas* and bulbs of rosy *Crocus*-like *Zephyranthes*. The *Croton* beds were filled with *Crotons* of every hue, interspersed with *Crinums*, *Amaryllis hybrids*, *Cannas*, and *Hippeastrums*. In the centre garden the sides of the archway and the interior of the summer-house were filled with *Eucharis* and *Caladiums*. The *Eucharis* did wonderfully well, only getting fitful gleams of sunshine through the creepers, and every pot throwing up some half dozen immense trusses of bloom.

The rockwork was covered with *Ipomoea Leari*, through which grew *Tuberoses*, *Zephyranthes*, and *Amaryllis*. The Bamboo fence round the garden was covered with scarlet *Ipomoea* and a border planted with *Ixoras* (red, white, and rose), *Allamandas*, *Oleanders* (single white and rose and double of sorts), and *Hibiscus* in some dozen varieties ran all round this garden. Between this and the summer-house were some two dozen beds filled with *Roses*, *Cannas*, *Hibiscus*, *Euphorbia*, and annuals, chiefly *Zinnias*, *Balsams*, *Phlox Drummondii*, *Marigolds*, *Dianthus*, and *Verbenas*. Where shade was obtainable under the giant Flame of the Forest trees on one side of the garden I grew several species of *Crinum* to perfection. There was an enormous *Bougainvillea* over an arch at the further end of this garden, leading to an old sundial erected by a gallant general—for the bungalow was the general's quarters years ago when British troops were quartered there—bearing his name as clearly as when it was cut nearly a century ago.

Roses, of course, in the plains do not do well. They flower freely if properly cared for, but the blooms are very thin and open too soon, and are very fleeting. But even in India one cannot call a garden worth the name without its *Roses*. I had no difficulty in getting a good stock of own root *Roses* from cuttings put down in the open in partial shade during the rains.

Amaryllis, *Tuberoses*, and *Zephyranthes* increased with me like *Crocus* and *Daffodils* do at home, and I began planting them about the grass on the lawns. The grass, of course, on the lawns round the house was watered daily and was very green, but in the park it was dried up from January to June, and during the rains had to be cut so frequently as it grew so fast that at last I adopted the amusing expedient of sending my peons (office servants) into the roads to order the shepherd boys driving their flocks from market or to pasture to turn the sheep into the park every week, but with strict orders that no goats should be admitted, for no Indian goat will look at grass while there are succulent trees or shrub shoots within his reach, and by standing on his hind legs it is wonderful how far he will strip your best specimens.

I grew many beautiful shrubs on the lawns, and where shade was available the *Gardenia*-like bush *Jasmines* did very well. Although I had to give up my garden all too soon this April to come home on leave, I had been

amply repaid already for the pains I had taken, and my pleasure was enhanced by the fact that my successor, though not an enthusiastic gardener, promised that he would gladly continue the work that I had begun, and was delighted at succeeding to such a pretty garden.

Such is a brief account of an amateur's garden work in the plains of South India. It is strange that so very few native gentlemen have any idea of the beauties of the flower garden, those that grow flowers at all generally growing them solely with a view to stringing them together for garlands for their religious rites or as marks of respect, and not caring for any arrangement to give a harmony of colour in the garden. I may add that one of the causes of any success I may have achieved in so short a time is due to the abundance of manure I was able to secure. Besides manure from my stables, I always had an abundant supply of cow, goat, and sheep manure brought in, and a large bone factory was at work a couple of miles away, so that I could procure crushed bones and bone-meal at a merely nominal price. All the beds and borders were therefore well prepared at the outset, which in India, as in England, is half the battle. R. A. JENKINS, I.C.S.

A STRAWBERRY FARM IN WISCONSIN.

THE Strawberry is grown on a large scale in America as it is in England. There is not a State or Territory where it is not cultivated and the fruits consumed in great abundance. Both city and country people enjoy Strawberries and cream when the fruit is in season. By the modern means of transporting in refrigerator cars Strawberries are sent for thousands of miles, and it is possible to find a few in the fancy markets at almost any time of year. During the flood tide of ripening the humblest may indulge in at least an occasional feast of fresh Strawberries. They are sometimes retailed at 5 cents per quart. There are single railway stations from which more than 100 carloads of 16,000 quarts each are shipped in one season. Fields of 50 acres to 100 acres belonging to one grower are not uncommon. The methods of culture do not vary greatly, and all of them include the use of horses very largely. By the use of modern tools there is little left for the hand hoe to do. Even planting is done by machinery in some cases. The most common system of cultivation is what is called the matted row. The plants are set about 2 feet apart in rows that are from 3½ feet to 5 feet apart. By frequent stirring of the soil with horse cultivators it is kept loose and free from weeds, except in the immediate line of the plants, where some hand work is often necessary. The young plants are allowed to spread over a strip, varying, according to the wish of the grower, from 1 foot to 3 feet wide. Another plan is to put the rows about 3 feet apart, and the plants 1 foot apart or a little more in the rows, and keep all the runners cut off. It produces the largest berries, but necessitates much work. By either method the best growers never allow the plants to bear more than two crops, and some but one. If they are left longer the weeds and grass become very troublesome, and the berries are not so large as on young plants. It is cheaper and better to plough them under

and spend the labour on new plantations. The native varieties are well flavoured but small in berry, and this caused the first attempts at cultivation to be made with the English varieties. But the two species were soon hybridised, and a new race was thus originated that surpasses either alone. We now have varieties of exquisite flavour that will yield from 6,000 quarts to 20,000 quarts per acre. There are about 500 named varieties of good quality, and more are being raised every year. H. E. VAN DEMAN.

THE INDOOR GARDEN.

FREESIAS.

GARDENING notes lose much of their value if they are not seasonable, and therefore my excuse for writing about these greenhouse winter-flowering bulbous plants is that now is the time to commence their culture. Much is gained by making an early start, late potted bulbs never make up for time lost at the

an amateur's greenhouse; about Christmas time when the Chrysanthemums are over and the forced Azaleas, Lilacs, &c., have not yet made their appearance the small conservatory is usually a most desolate spot; resting Ferns, half dead Geraniums, and leafless Roses more often than not are largely in evidence. And yet a display of beautiful Freesias might be had with very little trouble. The bulbs are not expensive to buy, in fact, large quantities of them are sold at the bulb auction sales in London every year. They may be grown either in pots or in boxes, in the former if required to make a display in the greenhouse or to be used in the home singly, but if cut flowers are wanted then the bulbs may be planted in boxes. It is astonishing what a quantity of flowers may thus be had.

Before being potted or boxed the bulbs should be sorted into two sizes, the larger ones and the smaller ones being kept quite separate. To mix both large and small bulbs together is the surest way to spoil a potful of Freesias, whereas when bulbs of uniform size are planted together the result is altogether satisfactory. The Freesia likes a fairly light soil, that composed of two-thirds loam, one-third leaf-soil, with plenty of silver sand added is suitable. In potting fill the pots (those 6 inches or 4½ inches in diameter are best) about two-thirds full with soil after having drained them,



A STRAWBERRY FARM IN WISCONSIN, U.S.A. MEN AND BOYS AND GIRLS ARE ENGAGED GATHERING THE FRUIT AND PUTTING DOWN THE LAYERS FOR NEXT YEAR'S CROP.

commencement. They, of course, start growth late, and lose the advantage they would otherwise derive from the late summer sun and light. The consequence is their growth is largely made in unfavourable weather, and instead of being strong and healthy is just the reverse. The best results are obtained by starting the bulbs the latter part of July; August used generally to be considered the best month for this work, but cultivators have grown wiser during the last ten years, and their methods of culture, as regards the Freesia and many other plants also, have greatly improved.

I am surprised that amateurs do not more extensively cultivate this charming South African flower, for anyone with a greenhouse or frame from which frost can be excluded may grow it to perfection. The Freesia may be had in bloom from Christmas onwards for several weeks, and nothing could be more acceptable for home decoration than its sweetly scented blossoms. Very rarely indeed does one come across a creditable lot of these plants in

then place the bulbs upon the soil (the large ones about 1 inch apart and the small ones rather closer), press them in slightly, then cover with more of the prepared soil.

Place them in a cold frame (or out of doors in a cool position and cover with ashes), covering this with mats to keep them cool and encourage root growth first. With Freesias, as with all other bulbs, one of the most important factors in their successful culture is to ensure root growth before top leaf growth commences. Without the former first assured, the latter can never be satisfactory. As top growth above the soil becomes evident by the leaves pushing their way through, the shading must be gradually removed, that is to say, do not have the pots of bulbs quite dark one day and expose them the day following to bright sunlight. If the weather is dull, the covering may be removed altogether, if bright shade them during the hottest part of the day.

The plants will make rapid progress if they are

kept cool, and this is most important. It is almost impossible to force the Freesia; the only time when heat does quicken their progress a little is when the flower spikes are seen, then if the house is kept moderately warm the blooms may be had a few days earlier. In the earlier stages of growth, however, a warm atmosphere is fatal to their well-being. When the pit or house is closed in the afternoon the temperature may be allowed to rise somewhat, but not above 65° Fahr. If the bulbs are started in July there is no need to force them in order to have flowers at Christmas, and if the plants have perfectly cool treatment, and occasional waterings with diluted liquid manure when the pots are well filled with roots, they will hardly fail to be satisfactory. As the plants are frail when the flower stems appear they must be staked; wires or neat green stakes are best. A. P. H.

THE FLOWER GARDEN.

BOLD EFFECTS IN FLOWER BORDERS.

A MIXED flower border is often spoilt by the use of too many sorts of plants at one time. In a very small place there is every excuse for this, for the owner may wish to have all his flower friends about him and has not room to make large groups; but too often in long stretches of flower border in quite large places one sees little dabs of a quantity of different plants, giving perhaps a certain brightness of colour, but fatal to any good effect. Such a border as that in the illustration shows the great advantage of a bold and quiet treatment of large masses of plants. Here we see wide breadths of Funkias and other noble plants, the whole thing full of interest, and with the quiet dignity that goes with proper treatment.

SEASONABLE WORK AMONG THE DAFFODILS.

JULY is perhaps one of the busiest months of the whole year among the Daffodils, especially where large collections are grown. Lifting and storing in

all trade establishments must be taken in hand each year. Certain enthusiasts will tell you that such and such nurserymen lift all their stocks each year, forgetful of the fact that the trade must do this whether they wish to or not, if only to select the larger roots for commercial purposes. In certain instances, and with the common sorts generally, it not infrequently happens, when these are grown in large areas, that the medium and small ones are kept apart, the former for lifting the year after planting, the latter in the second year. This means a great saving of time, and the bulbs being easily sorted into sizes when in the dry state may be the means of saving some acres of bulbs having to be lifted. Amateurs are frequently at a loss how to act, and advice, particularly as to what sorts of Narcissus may be left in the soil from year to year with impunity, and what others are best lifted and given a short season of rest, may be helpful. Lifting largely depends upon the soil. The white trumpet sorts, of which *N. cernuus* and *N. albicans* may be accepted as examples, respond well to the annual lifting, and, generally speaking, are improved thereby. We have, however, instances in mind where such as *N. tortuosus*, as also *N. cernuus* and others, have remained for years undisturbed, growing well and increasing even better than by lifting. Any reader so situated is advised to practise what experience has shown to be right in his own peculiar circumstances rather than follow a theory which must be accepted generally or on broad principles. The latter, indeed, favours the lifting whether in light or heavy soils, with a rest of not more than six weeks out of ground.

Going a little farther into the larger bicolor race, we find many of these have quite a vigorous constitution, the latter largely responsible for their safety in many gardens as well as various soils. Taking a few popular sorts, as *Mme. Plémp*, *Grandeé*, *Horsfieldi*, *Empress* (bicolor of *Haworth*), and *Mrs. W. Ware*, we find all of these like biennial or even triennial lifting, provided always they are well planted and in their last flowering gave no sign of being affected with basal disease. This applies to all sections, and it is an important point in this connexion. Other bicolors, such as *Victoria*, *J. B. M. Camm*, and *Dean Herbert*, are best lifted from all heavy soils, and only retained in the ground where the soil is light and abundantly

drained. Then there is the yellow trumpet section in which we find *Emperor*, *P. R. Barr*, and *Princeps* among many more, the first is usually safe in all soils for two or more seasons, while the others mentioned are safe in all light soils and increase readily. Both *P. R. Barr* and *Princeps*, however, cannot be left in heavy soils, while *Princeps*, where a chalk subsoil exists, will frequently die out altogether. Others in the yellow set that will repay for lifting each year are *M. J. Berkeley*, *Glory of Leyden*, *Golden Spur*, *Queen of Spain*, *Obvallaris*, *Henry Irving*, *Captain Nelson*, &c.; indeed, vigour does not appear to apply in this case at all, for *Golden Spur*, one of the strongest, is often a failure when left in the soil more than a season.

Lifting, perhaps, serves in a degree to destroy disease which would flourish and extend were the bulbs left in the soil. As I have known large areas of this kind to perish I do not advise anyone running the risk. The Barri group (and *B. conspicuus* especially) is quite at home in all ordinary soils for some years, a similar remark applying to a large array of *Incomparabilis* forms, and to the *Leedei* section generally. One small group, the *Poeticus*, seems to resent lifting. Doubtless, this is in a measure due to a nearly perpetual rooting characteristic, and the tenacious fleshy-wiry root fibres even when out of ground are remarkable.

Of this section a noted grower said to the writer many years ago, in speaking of *N. P. ornatus* chiefly, that "five minutes out of the ground is four minutes too long," and there is great truth in the observation. In this matter of lifting, the old double yellow Daffodil is very curious, and one stock will do quite well and another fail on the same land. Maiden soil is good for such as this, but this portion of the subject will receive attention later on. For the present the above notes may afford a clue as to what should be done in the sections enumerated. E. H. JENKINS.

(To be continued.)

HARDINESS OF PERSIAN CYCLAMEN.

THE Persian Cyclamen gave rise to the improved species *C. p. grandiflorum*, and which in its turn was the origin of many beautiful varieties. Up to the present time this plant has been cultivated exclusively in the greenhouse, yet this year we found it to be much hardier than we had supposed. A tuber was left in the open in a dry soil under a bank facing south and without any covering. The plant began to grow very early in the spring, and bloomed about April 15. We have, therefore, every reason to think that tubers of the Cyclamen, planted in a raised bed and sheltered simply by a light covering of dead leaves, would as a spring flower vie with the Hyacinths, Crocuses, Tulips, Narcissi, Scillas, Muscari, and other spring bulbous plants. The fact of the plants being in the open air would certainly cause the formation of very strong tubers, which it is well known are always the most free flowering.—JULES BURVENICH, in *Bulletin d'Arboriculture*.



BORDER OF FLOWERS BOLDLY ARRANGED. (From a photograph by Miss Willmott.)

THE ROSE GARDEN.

ROSE AIMEE VIBERT.

HOW beautiful this fine old Rose is just now, and it will go on flowering right into the late autumn. It is a great success when budded upon a short, medium, or tall standard Briar. I met with one the other day in a cottage garden, and it was the picture of health, the fine glossy green foliage contrasting so admirably with the bunches of snow-white blossom. Upon a very tall stem this Rose looks well,

and it quickly develops a very large head. It has not exactly the weeping habit of the Ayrshire Roses, but in time the weight of the branches causes them to bend over so that the stem is partly hidden. It is a Rose that should be afforded plenty of space, for then its fine proportions are seen to the best advantage. Naturally, such a fine climbing Rose is suitable for planting against a pillar. It does not run up very high, but it becomes dense at the base, and therefore the old and useless wood should be well thinned out, retaining their full length the one and two year old growths. I have seen this Rose flourish quite near to the sea, and I have also found it in villages completely covering thatched cottages with its abundant growths and wealth of blossom. We cannot very well make too much of these late-flowering climbers. In June and July we have a wealth of good things, but in autumn, save the good old Gloire de Dijon and a few others, we have none too many Roses that will blossom so freely as *Aimée Vibert*.

PHILOMEL.

ROSES AT RUCKMANS, OCKLEY.

THIS being now a veritable garden of Roses, I think you may like to have a short description of it. Two long beds with grass edgings full of the old Damask and the York and Lancaster, strong bushes of four years' growth, are blooming profusely, and filling the air on these hot summer evenings with their peculiar spicy fragrance.

At one end of the border is a tall bush, some 8 feet high, of the old pink Boursault, and another bush of the lovely Rose Celeste. From the grass margin of these long beds descend some wide but shallow grass steps, on a grass terrace, the steps being arched over by Penzance Briars, whose full beauty is past for this year. Along the terrace, flanked by a 4-foot brick wall, are beds of Tea Roses, Mme. Lambard, Francisca Kruger, and Anna Olivier just now especially beautiful. From this grass terrace there are more steps arched by Paul's Carmine Pillar, another transient beauty, but a vivid joy while it lasts. Then another brick

wall with yellow and white Banksian Roses growing rampant along and above it, and more Tea Roses pegged down below. Bardou Job with its velvety deep crimson, semi-double flowers is now especially beautiful.

My Hybrid Perpetuals are in another part of the garden. Two long lines of dwarf bushes are divided by a narrow grass path and backed by a high Yew hedge. Viscountess Folkestone and Frau Karl Druschki among many others are in full beauty, and I am glad to say are free from blight. I find in gardening, as in so many other things, that prevention is better than cure, and by doctoring my Roses before the fly lays its eggs, a not unpleasant morning's task, many hours of most disagreeable work may be avoided.

And now a word about the chief favourite among my many treasures. Mme. Alfred Carrière is to my mind absolutely the most satisfactory Rose. I have it growing as a



ROSE AIMEE VIBERT AT SPITAL BROOK, HODDESDON, HERTS. (The plant is 30 feet high.)

climber on the east side of the house, where it reaches to the top, and looks beautiful against the old grey lichened roof of Horsham flag stones; as a bush, upon which I counted more than sixty blooms; and as a hedge 10 feet high, where on both sides the six plants of seven years' growth are a mass of white bloom. I planted them 6 feet apart, and they form a close hedge, and are satisfactory both as regards foliage and flower from base to summit. They begin to bloom by the end of May and continue to the end of October. The Rose has a peculiar and very sweet scent, reminding one of the taste of the Muscatel Grape, and during the six years in which the hedge has been my chief garden pleasure I have never known it to be infested with green fly or other pests. I am often surprised that this Rose is not more generally popular, for its merits are so obvious that it deserves greater attention, and in this garden of many varieties it is undoubtedly everyone's favourite.

R. LYELL.
Ruckmans, Ockley.

NOTES FROM SCOTLAND.

AN improvement in the arrangement of the plants in the large circular conservatory in

the Botanic Gardens, Glasgow, was commenced by Mr. Whitton lately, the central portion having been planted with specimen Tree Ferns, each standing sufficiently wide apart to permit the observer to see most of them at a glance, while the general effect gives one the idea of a grove of this noble type of vegetation. I should imagine that nowhere else in the British Islands is it possible to find just such another group, alike for the number and quality of the plants employed and the impressive massing of the whole. A new Todea house has just been finished in the same gardens. Glasgow is unique in having attached to nearly all its public parks extensive glass erections devoted to the cultivation of flowers solely for the delectation of its citizens. Orchids are cultivated quite extensively, a houseful of Dendrobiums at Queen's Park being in the pink of condition. At Tollcross, Cyrtopodiums are made a speciality, and here, too, immense quantities of Odontoglossums are cultivated. Seedling raising goes on apace, and perhaps before long we shall have the corporation of the second city

startling the horticultural community with some out of the way novelty. The curious thing is, that all the glass structures are open to the public, whom Mr. Whitton declares appreciate Orchids to the full, as well as the tens of thousands of plants of a less aristocratic character cultivated to keep the winter gardens and greenhouses gay during the whole year. One of the most distinct pot plants I noted when there lately was

THE DOUBLE RAGGED ROBIN,

which, failing to prove satisfactory in the open, was treated as a greenhouse plant. It has proved to be quite satisfactory. In the Winter Garden at Springburn the broad raised promenade is bordered by masses of double and single zonal Pelargoniums in the most glorious colourings. The climate in the west is too wet for these out of doors. A beginning has been made in the same structure to furnish the space on the ground level with large Tree Ferns, Palms, Strelitzias, &c., planted out.

A NEW MALMAISON CARNATION.

At the recent Rose show at Glasgow, Mr. Campbell, High Blantyre, among the Carnations he exhibited on that occasion had a Malmaison of a novel colour, which I thought very attractive. I had seen the variety a year or so ago, but not in good condition. The colour is light apricot, one of those peculiar tints that must be seen to be appreciated, the petals smooth and well arranged. It is named The Queen, and the stock, I believe, will pass into the hands of a metropolitan firm for distribution.

THE FRUIT CROPS.

As the season advances the serious deficit in the fruit crops becomes more apparent. In some gardens Strawberries are a blank, in others Gooseberries, and Black Currants are so scarce that in the words of a fruit merchant whose dealings are on a large scale, "they are at ransom prices." Raspberries are perhaps the one crop that is not more or less a failure. There are many gardens in which there are no Apples, Plums, Pears, Apricots, or Peaches. It is certainly the worst fruit season since 1880. A gardening friend of fifty years' experience declares it to be the worst he remembers.

R. P. B.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

THE NEGLECT OF THE VERBENA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It is very gratifying for one's eyes to once again gaze on clumps of Verbenas after their almost total absence from our gardens for some years. Forty years ago the new varieties of Mr. Chas. Perry, of Castle Bromwich, were the feature of nearly every well-kept garden, and at exhibitions the rows of Verbena stands were one of the chief attractions. To the very old admirers and cultivators of this charming, free-flowering, and sweetly-scented family, it affords them much pleasure to observe they are likely to come to the front again for the decoration of our gardens. The following were some of the varieties seen in competitive stands twenty years ago, and thousands would like to see them revived: *Admiration*, *Annie Improved*, *August Renz*, *Ball of Fire*, *Boy in Blue*, *Dr. Feyerlin*, *Edward Perkins*, *Esmeralda*, *Flower of Dorset*, *General Picton*, *Hawk Eye*, *Lady Langlesbury*, *Lady of Lorne*, *Lord Chelmsford*, *Lord Cranbrook*, *Lord Leigh*, *Marion Baker*, *Master R. Cannell*, *Phillip Paulig*, *Phlox*, *Princess of Wales*, *Queen of Verbenas*, *Sir Garnet Wolseley*, *Star*, *Star of Erin*, *Swanley Stripe*, and *Victor Emmanuel*.

More recently Miss Willmott, of Warley, has been giving attention to the raising of varieties of beautiful colour and form, and the one named after her has been justly admired wherever exhibited,

and eagerly sought after by all growers. At the Drill Hall a few weeks ago Miss Willmott showed another grand improvement named *Warley*, and it is said to keep entirely free from the evil effects of mildew. This charming variety will soon prove an acquisition in my opinion, and it will become a general favourite. At the same time, it will do much to bring the *Verbena* into favour again, which I hope will be as generally grown and appreciated as it was formerly. So highly appreciated was this flower forty years ago that steamboats plying on the Thames were named after various families of flowers, and the favourite boat was that christened *Verbena*.

Swanley.

HENRY CANNELL.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—There are evidences of a revival of interest in the *Verbena*. The fine seedling which originated in the garden of Miss Willmott at Warley, and which worthily bears her name, through being exhibited frequently of late has done much to quicken this interest, and evidence of it is found in the fact that other named Verbenas are putting in an appearance. It is so with some plants; they fall away for a time into comparative neglect, and then, after a time, they are taken into favour again.

Previous to the introduction of *Verbena chamaedrifolia* in 1827 some species of *Verbena* were cultivated in gardens, but when the variety *Melindres* was introduced, figured, and described, interest in the flower became quickened. *Twediana* was one of the newer introductions, and this, no doubt, was valuable as a seed parent, and the well-known species *V. venosa* was also employed for cross fertilisation. *Venosa* is a most useful subject for bedding purposes, and is probably seen at its best when employed in association with variegated *Pelargoniums* or the silvery-leaved *Centaurea ragusina*. A coloured plate of some of the new Verbenas of 1848, which appears in the January number of *The Florist* for 1849, shows small and starry flowers; but such raisers as Kendall, Banks, Geo. Smith, Lochner, and Wyness, who was gardener at Buckingham Palace, with Messrs. E. G. Henderson and Son, were all at work improving the flower, Smith, who was a florist at Islington, being a very successful raiser. To these succeeded Mr. Edmonds, who was gardener to the Dowager Lady Lacon at Great Ormesby, Yarmouth, and by 1854 some greatly improved flowers raised by Edmonds were distributed by Mr. C. Turner from Slough, and found great favour, chief among them *Blue Beard*, *blue*; *Lady Lacon*, *pink* and wonderful plum coloured. Woodroffe, of the Harrow Road, had obtained Mrs. Woodroffe, rich, deep scarlet; Robinson, of Picnic, his *Defiance*, *scarlet*; and Geo. Smith his *Boule de Feu*, bright crimson; these became highly popular bedding varieties; and, with Edmonds' additions year by year there was afforded material with which Mr. C. J. Perry, of Castle Bromwich, towards the end of the sixties began to raise the fine new varieties which were annually distributed from the Royal Nursery, Slough. Mr. Perry grew his Verbenas in pots under glass, and by this means he was able to produce bold trusses of bloom of large size and great beauty, which he exhibited in bold bunches, and thereby gave a great impetus to the cultivation of the *Verbena* as an exhibition subject. On the death of Mr. Perry, Henry Eckford, then at Coleshill, Berke, who for years previously had been an active and successful florist, took up the work, growing his Verbenas in the open, and raising seedlings which were named and distributed by Messrs. Keynes and Co., of Salisbury. Other raisers were producing varieties, among them Messrs. Keynes and Co., who became considerable trade growers of the *Verbena*, and their *Lustrous*, a brilliant scarlet bedder, if it could be secured, would make an excellent seed parent in the present day.

The introduction of the fine large-flowered forms of *Phlox Drummondii*, the *Begonia* and other subjects, brought about a decline of interest in the *Verbena*; but, as already stated, there are evidences that it is again becoming a favourite.

Named Verbenas are propagated in spring by

cuttings made from the growths of plants kept in a greenhouse during winter. Placed in pans of sand saturated with water, and the pans on a propagating bed, the cuttings root in a very short time. As it is difficult to keep old stock plants through the winter for propagating purposes, it is well to have a reserve of late-struck cuttings in pots, as more likely to come through the winter in safety; a dryish atmosphere, with care in watering, are helpful in carrying the plants through the winter.

Seeds of fine varieties may be sown on a gentle bottom heat in February and March, the seedlings duly pricked off and grown on into size, and then planted out at the end of May to flower during summer. Seedlings are generally more groes in growth than propagated plants, and the soil in which they are planted, while being of good heart, should not be too highly manured. Seedlings vary in quality of flower, and also in habit of growth, and therefore, if certain effects and combinations be required, propagated plants of known varieties should be employed in preference.

Until comparatively recently Verbenas were grown in pots and exhibited as specimen plants, and particularly so in the West of England. The plants were grown in good sized pots, and their branches displayed over a kind of sloping shield, placed in a sloping position; the flowers thus faced to the front, and it was remarkable what superb masses of bloom were thus obtained. Bunches of trusses of Verbenas are now superseded on the exhibition table by those of *Phlox Drummondii*, the improved varieties of which, when well grown, make striking exhibition subjects.

R. DEAN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am not sure whether what is commonly regarded as the decadence of the *Verbena* is not partially due to indifferent treatment and partly to seedmen's enterprise. If we can, as we undoubtedly do, perpetuate Verbenas so well through seed, it is evident that the plant does not lack stamina. Certainly we can now obtain from a packet of seed varieties of singular beauty, such as were in existence in the palmy days of the *Verbena*, and which we should have jumped at as first-class additions. But I want to have it made clear that the *Verbena* as propagated by cuttings from named varieties really has deteriorated. A few years since when in one of Lord Farrer's greenhouses at Abinger Hall, Guildford, Mr. Payne, the gardener, an old Kew man, drew my attention to fine pots of plants on a shelf of varieties that were widely grown as bedders so long since as 1850. These included *Purple King*, *Scarlet Defiance*, *Admiral Dundas*, and some others I have forgotten the names of. Now it was obvious that what Mr. Payne could do so well, others could do also, and he had preserved his stock of these old varieties solely by treating them as hardy greenhouse plants in the winter, only subjecting them to warmth in the spring, when propagation had to be resorted to.

In the old days fifty years since there was no trouble in keeping Verbenas in robust health. Two favourite methods of keeping stocks existed. The best was that of shifting some young plants in the spring into 6-inch pots, keeping them moderately pinched during summer and fully exposed outdoors on an ash bed to the sunlight. These plants always wintered well and gave a fine stock of cuttings in spring. The other method was to root young shoots that were not carrying flowers in the autumn, or really about the middle of September, putting twelve to fourteen in a 6-inch pot, letting them get well rooted, wintering them on a top shelf in a rather cool greenhouse, and getting plenty of cuttings from them in spring. If aphids gave trouble, an occasional dip into a nicotine solution, the pots being carefully inverted, kept them clean. If we had in those days no patent insecticides, certainly we had as many insects, and could always manage to keep them in check. We did get, as bedding out was then regarded, some fine masses of colour from Verbenas, the difference between those propagated plants and those now obtained so freely from seed being that then we did know what the flowers would be and

growth was not rank. Now there is no certainty as to colour of flowers, and growth is apt to be rather wild. All the same, I freely admit that I have seen many mixed beds of seedling Verbenas that were very beautiful for a season, though apt to be overgrown towards the autumn.

It is rather odd that the recrudescence of the Verbena as a propagated plant should be due to a lady amateur gardener. All honour to Miss Willmott for what she had done. Starting with a superb and now wonderfully popular variety in her namesake, she has set for herself a difficult task to find something to excel it. It is indeed creditable that her beautiful variety should so soon have become a widely grown market plant. The scarlet Warley reminded me much of the old scarlet Defiance, a popular bedder in its day. What a fine effect would be created were a bed carpeted with Warley, close pegged down, and strong plants of Ellen Willmott dotted in 2 feet apart? No doubt one reason for the removal of Verbenas from gardens as bedders was their tendency to produce rather flat formal masses of one colour. In those days we had not learned to use such plants as carpets, with tall graceful plants standing above them. Let us hope, thanks to Miss Willmott's efforts, the Verbena has yet a bright garden future.

A. DEAN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I believe that one thing that caused the Verbena to be neglected was the extreme forcing to which the plants were in many places subjected in their propagation. A cold frame is the best place in which to strike Verbena cuttings. Place about 8 inches or 10 inches of half-rotted leaves beaten firmly into the bottom, and over the leaves put about 3 inches of light soil composed of one part loam, one part well-rotted leaf-mould, and one part sand. This should be well mixed, passed through a $\frac{1}{2}$ -inch sieve, and firmly beaten down with the back of the spade. Select cuttings from fresh shoots that have not bloomed and become wiry and long pointed. Cut through at the third joint from the top, remove the two bottom leaves, and dibble them into the frame about an inch apart. Water with as little delay as possible, so that they are not allowed to droop and get checked by being dried up. Shut down the frame, and

give shade during strong sunshine in the middle of the day. After a few days the lights may be tilted in the evening, and in the morning, if the day is likely to be hot, they may be gently dewed overhead with a fine rose or syringe. Under this treatment they will root without making much top growth, and make better plants than those struck later in the season and in warmer quarters.

Ashwellthorpe Hall, Norwich.

T. B. FIELD.

DAFFODILS FROM SEED.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I read with much interest a letter on "Daffodils from Seed" in THE GARDEN of the 18th ult. The list of seed bearers will be very useful to many who are not acquainted with the habits of the different Narcissi in this matter. I was surprised that "N. B." has not succeeded in obtaining seed from Empress. I have always obtained a fair quantity of seed from it. Sir Watkin and Crown Prince I have also obtained seed from. I have also had a lot of seed from grandis this season, although I have never before had any from it. I failed to get any from ornatus this year. The severe frost in the middle of April must have done considerable damage when the process of fertilisation was going on.

W. A. WATTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have read "N. B.'s" note on this subject (page 45) with the greatest interest, and, as one who has quite lately begun to hybridise these flowers, I should like to say how very helpful this list will be to me in the future, and I feel sure to many other readers as well. In fact, I have been endeavouring to obtain such a list for some time, but without success, for the very good reason that most of those who do know will not impart their information to others. This last spring was remarkable for the indifferent way in which many varieties set seed, and I question whether we could possibly have had a worse season for pollen. Beatrice Heseltine seeded splendidly with me this year, and I also obtained a good deal of seed from pallidus præcox crossed with obvallaris. A fallacy which I find exists amongst some amateurs is that now the standard of excellence has become so high

it is almost useless to cross-fertilise the commoner varieties. That this is quite a wrong idea is frequently proved. Last year, for instance, saw the advent of that splendid yellow trumpet King's Norton, which Mr. Pope assures me was simply a chance seedling raised from Emperor and not crossed. And this fact serves to demonstrate the wisdom of Mr. Burbidge's advice which Mr. Bourne reiterates, "raise seedlings—hybrids if you can—but raise seedlings."

All Daffodil lovers will welcome Mr. Bourne's book. It is clear and concise, and written in such a way that the veriest tyro cannot fail to understand it. But neither Mr. Bourne nor your correspondent "N. B." make any mention of the fact that provided a little extra cultural attention is given to seedlings their time of flowering can be considerably hastened. A friend of mine sowed seed in the autumn of 1898, which he had obtained by crossing Weardale Perfection with Mme. de Graaff. The plants were reared in a cool greenhouse, and as soon as they were 3 inches high were potted separately, with the result that they increased in size more quickly than they would otherwise have done. Most of them bloomed this spring in the open beds, in which they had been planted for two years, and both the flowers and bulbs proved to be equal to an average Mme. de Graaff. To deal with a large number of seedlings in this way would be too much of an undertaking, but seed saved from the choicer varieties should be well worth this extra trouble. In order to encourage the raising of seedlings the Midland Daffodil Society offer some handsome prizes in their schedule for next year for a small group of six seedlings, in addition to the usual class for twelve seedlings.

Worcestershire.

ARTHUR R. GOODWIN.

HALTON GARDENS, TRING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It was my good fortune about ten days ago to have the privilege of looking round Mr. Alfred de Rothschild's gardens at Halton, near Tring, and perhaps I may say I saw there what I considered to be decorative gardening at its best. The masses of evergreens are a picture in themselves, and receive every attention in the way of pruning at the proper time of year. In the summer season baskets of pink Ivy-leaved Geraniums are studded about these evergreens at irregular distances from 4 feet to 20 feet from the ground. These baskets, which measure about 4 feet across, are fixed upon poles and are a mass of flower. No one can form an idea of the effect of this arrangement, and in my own opinion it puts all the old styles of bedding out quite in the shade, and I can only say it reflects the greatest credit upon Mr. Sander, the head gardener at Halton, for conceiving such a splendid idea for decorative gardening.

Bletchley.

G. B.

ENGLISH IRISES AT KEW.

ONE of the prettiest pictures in the Royal Gardens, Kew, a few weeks ago was the grouping of English Iris in a way we have never seen before. It is a happy way of using a beautiful flower which is too often confined to the mixed border. Our illustration will convey better than a description the effect of this free and unusual grouping. The English Iris, by reason of its broader segments, is better adapted for this method of planting than the Spanish group, which is apt to look weak unless planted with great discretion. There is this advantage, too, that the bulbs of both groups are very cheap.



A BREADTH OF ENGLISH IRISES IN THE ROYAL GARDENS, KEW.

INSECT PESTS.

THE GOOSEBERRY MITE.

CLOSELY allied to the red spider of Vines is this tantalising little pest, which, in scientific circles, answers to the name of *Bryobia pretiosa*, and invariably causes trouble amongst Gooseberry bushes during the summer months. In the market plantations in Kent it is a terrible pest, and gives more trouble to the growers than any other on account of the great difficulty one has to eradicate it. But for the sickly yellow appearance which the leaves of infested bushes assume, it would be difficult to locate the pest, which is a mite in the strict sense of the word. As it is there is no trouble in distinguishing the enemy, because the leaves, instead of being of a bright green hue, turn to a reddish brown, and from that to yellow, after which they fall. By the aid of a microscope the pests may be observed clustering on the undersides of the leaves while they are engaged in extracting the juices from them.

There are certain conditions under which the Gooseberry mite does the most damage, and one is in the case of old and partially worn-out bushes. A bush that has lost the vigour of youth falls an easy prey to the mite, and when the latter is on the warpath it is such a specimen that first succumbs. Drought is also conducive to the spread of mite, particularly at the roots, and for this reason bushes growing in hot, shallow soil invariably suffer. Poverty is another cause, and those good people who think they can grow Gooseberries successfully year after year without giving the bushes any manure are generally among the first to complain of the mite trouble. Prevention is better than cure, and to evade loss at the hands of the pest in question there is nothing like maintaining a free vigorous habit by growing young bushes and treating them liberally.

If, in spite of these preventive measures, the foliage looks unhealthy enough to give rise to suspicion, a few of the leaves should be carefully examined through a glass, and if mites be discerned spraying operations should be commenced at once. Any advertised insecticide that will kill red spider may be used, and a good home remedy is formed by dissolving 2oz. of soft soap and a handful of flowers of sulphur in a gallon of boiling water. A wineglassful of paraffin should also be added and thoroughly churned in. The mixture should be warm when used, and be applied to the underside of the foliage after the sun has gone down in the evening. Prompt application will stop the spread of the pest, but if it is allowed to get headway much damage is done, and old bushes not infrequently die under the injurious influence of the mite. G. H. H.

NOTABLE GARDENS.

PARK PLACE, HENLEY-ON-THAMES, is well known for the great beauty of its extensively wooded grounds. They have their eminences and undulations, and from the former magnificent views can be had of the lands lying in the valleys. There are noble trees, extensive gardens, and much glass. On every hand there are interesting features and natural pictures of fascinating beauty. To get a glimpse of the splendour of the woodlands, the domain needs to be approached from the opposite side of the river which fringes the slope of woods. In carrying the eye from the lowest point upwards it seems as if every form of tree, variety of leaf and shade of green, can be seen. One perceives a great variety skilfully blended, giving the appearance of the work of a planter who knew what he was about. There is no thought of confusion in the wide slopes of wood falling away to the gleaming river. The rising woods waver all over in the soft mellow sunlight, the leaves rustle in the gentle breeze; ear and

eye alike draw in the inspirations of life and beauty.

The summit nearly reached, we come to the long subterranean passage through the native chalk, and beyond the plateau, with its massive trees and cool shrubby walks, with much in the way of picturesque tree and shrub on every hand; a fruit garden with its flower border on either side, had its edging of Cupid Sweet Peas, which Mr. Stanton stated are found to bloom much better planted in a line than when in masses; then to some glass erections with an inspection of their contents, of fruiting trees and flowering plants; at the back of one a huge bank of the orange-flowered *Streptosolen Jamesoni* as one rarely sees, covering a very large space of wall; but this is but one of several floral features of like character. The charming residence of the gardener was also visited; this is being prepared for Mr. Powell, who, having acted as foreman for a long time to Mr. Stanton, now succeeds him as gardener, the latter devoting himself to the estate. Mr. Stanton has had charge of the gardens for over thirty years, and during that period has greatly improved and extended them and the grounds. The bothies are quite up to modern requirements, and the large sitting and reading room set apart for the young men is admirably fitted up and lined with pictures, including several photographic groups of the past and present employes on the estate, who are brought together by the generous liberality of Mrs. Noble once a year, and the visit recorded in this way. Close to the gardens are some delightful cottages for the workpeople, the walls planted with various cordon fruit trees by Mr. Stanton. In visiting Park Place one is able to gather some idea of the great moral and social benefit arising from the interest in and concern shown by Mrs. Noble in the interests of the employes on the estate.

I paid but a very hurried visit to this fine domain. I left it as the oncoming of evening brought changes from light to shadow on the landscape and on the woods, upon which the eye dwelt with a sense of rest and refreshment. R. DEAN.

MISCELLANEOUS.

SOME POPULAR ERRORS ABOUT MUSHROOMS.

MUCH of the uncertainty which to many persons seems to attend the collecting of the edible fungi is fostered by the many popular errors concerning the true nature of these plants and the means by which they may be identified. These mistaken notions, which often amount to superstition, are largely due to the fact that a large part of the development of these plants is hidden from view. Consequently their ways are shrouded in mystery to the average observer. Then, too, their sudden appearance, coupled with the fact that they often grow in dark, damp places where most other plants do not thrive, lends to them an unnatural, strange, or uncanny aspect, which may often prove a fertile source of suggestion to the superstitious mind.

Thus it seems to be no uncommon belief that in some mysterious way toads have something to do with them, hence the term Toadstool, which suggests to the imaginative mind the picture of a toad squatting on top of one of these plants. It is to be very much doubted if any person ever saw a toad in such an unusual and uncomfortable position. Moreover, many of them are incapable of supporting the weight of even the smallest toad, while others often grow where no toad has ever been. In fact, there is no more foundation for such a belief than there would be for an idea that toads cause the growth of other plants near which they may happen to be found.

One very common error in the use of these terms is that a Mushroom and a Toadstool are two distinct things, hence the oft-repeated query, "How do you tell a Mushroom from a Toadstool?" To the surprise of the enquirer the answer of the botanist is that there is no difference. This

leaves the matter in greater doubt than before. The person who is able to recognise one fungus as edible usually applies to it the term Mushroom, and calls all others Toadstools; while another person may be familiar with the edible qualities of a number of kinds and use the same method of naming them. Thus it will be seen that what would be a Toadstool to one person would be a Mushroom in the vocabulary of another, and with equal propriety in each case, therefore the synonymy of the two terms is established through popular usage. Moreover, no scientific distinction is made between these two terms. It is evident, therefore, that there are edible Toadstools as well as poisonous Mushrooms.

This question is also suggestive of the prevalent idea that there is some short and reliable test or rule that can be applied, and which, like a lucky-stone, will guide its possessor in the selection of the good and the avoidance of the harmful kinds of fungi. Thus the collector of fungi for scientific purposes is often warned by the persons whom he meets against eating any of the specimens in his basket, while some sure and time-honoured formula is condescendingly proffered. The expressions of amazement and incredulity on the faces of these persons when told that all of your specimens except, perhaps, two or three are edible, are often amusing to see. Many otherwise well-informed persons claim to be able to "tell a Mushroom" by some such test as the following: The cap must peel readily; they are pink underside; they should not blacken a silver spoon in cooking; must have no disagreeable taste nor odour; should turn dark when salt is sprinkled on underside; avoid those having bright colours, &c. These are only a very few of the rules or so-called tests that are supposed by many persons to enable them to discriminate between good and bad fungi. It is not strange that the terrible fatalities that now and then occur from eating poisonous Mushrooms should be found among the ranks of those who have faith in the above means of discrimination. It is only to be wondered at that they do not occur more often, for while some of these rules might serve to exclude "the deadly Amanita" and its noxious relatives, others are no more to be relied upon than is a horse-shoe over the door in an epidemic of small-pox. Furthermore, most of these rules exclude many of our choicest and most abundant food species of Mushrooms.

If, then, there is no easy set of rules, no reliable test that will exhibit the danger signal, how is the novice to know when gathering the fungus offerings of woods and fields, that he is not placing himself in a fair way to become a subject for the coroner and undertaker? The real question to be answered is, How can we learn to know the edible from the poisonous species of Mushrooms and Toadstools?

The popular demand for some short and easy way to make this discrimination has often led to the adoption of some artificial means in lieu of the only safe and natural method, the use of the botanical characters of each fungus. It is desirable, therefore, in gaining a correct conception of the Mushrooms and Toadstools, to realise that each kind has certain definite characters which, when familiarised, admit of ready recognition. It is also a well-established fact that some species of fungi are wholesome while others are poisonous. Thus it logically follows that if a person is familiar with the specific characters of any species of edible fungus, he may safely collect that species for food. This is the method pursued by many persons who know only one or two kinds, and so long as they have recourse only to those species with which they are familiar they incur no more risks than in the use of other articles of food. Therefore, a preliminary answer to the foregoing question would be, before using any Mushroom for food, learn to recognise it by its botanical characters, or at least become so familiar with its appearance that it can be recognised under all circumstances.

If, in addition to such information, the specific characters of the few poisonous kinds apt to be met with are also familiar to the Mushroom hunter, an additional safeguard is assured, and one which will enable him to discard those species which are the most common cause of disaster. One of the



GRAPE APPELEY TOWERS.

most encouraging features of this subject, contrary to the usual supposition, is the fact that most of the species of Mushrooms and Toadstools are either edible or are at least possessed of no dangerous qualities. And, fortunately, the comparatively few species which do possess a dangerous and poisonous principle also have a structural character, which, when familiarised, admits of ready identification.—*Bulletin of Agricultural College, Michigan.*

THE FRUIT GARDEN.

GRAPE APPELEY TOWERS.

It is remarkable that this handsome black Grape, and the white variety named Lady Hutt, being as they are in most respects strikingly dissimilar, should have been raised together from identical parents.

This shows how uncertain are the results of cross breeding, and what interesting surprises are sometimes in store, even for the practical hybridist. Appley Towers belongs to the various thick skinned late keeping Grapes that, especially in the black division, include some handsome varieties. Some, such as the Alicante and Lady Downe's Seedling, have for many years been popular under glass. Appley Towers has some valuable qualities, and is well known, yet it does not appear to have

own roots. It is rather late compared with many varieties in ripening its fruit and wood, retaining its foliage in fresh condition for an unusually long time, and for these reasons it should be allowed a fairly long season of growth to ripen its fruit early in autumn, so that not only its fruit but its wood also have an opportunity of becoming perfectly matured. With the same object in view its lateral growths should be afforded liberal space in which to develop their large foliage.

The raisers and introducers of new hothouse Grapes appear to have given particular attention to the section to which Appley Towers is closely related, for most of the new varieties belong to it. Appearance has apparently been the attraction, but handsome and valuable as most of these varieties unquestionably are, both for their good keeping properties and simple cultural requirements, they are not remarkable for flavour, which is, after all, the principle virtue of a Grape. With the Frontignan, Muscat, or Sweetwater sections, to which Muscat of Alexandria, Mrs. Pince, Madresfield Court, Black Hamburgh, and similar choice varieties belong, hybridisers would probably reap rich reward. Closer attention should be paid to these highly flavoured classes.

THOS. COOMBER.

The Hendre Gardens, Monmouth.

become generally grown, although it has been said that market growers in the Channel Isles appreciate it. Its proper place is in a late house, where it should receive treatment that suits the Alicante, and it is as easily managed. It grows very freely, forms strong wood, and robust thick foliage, which red spider cares little about. It shows and sets its fruit freely, and develops firm, compact shouldered bunches, that, if the berries are properly thinned, travel well. The berries are large, oval, perfect in colour, and carry a thick bloom. When well grown the bunches are very attractive. In flavour it may be compared with that of other Grapes of its class, being pleasantly brisk and refreshing, and keeps well. It has a firm flesh and somewhat thick textured skin. We have it growing in an inside border, inarched upon a Madresfield Court stock, and it thrives and fruits well, though its robust healthy condition indicates that it would succeed equally well upon its

GARDENING OF THE WEEK.

ORCHIDS.

MILTONIA ROEZLII

SHOULD, as new growth begins, be repotted or surfaced with fresh sphagnum moss. These plants must always be kept in fresh sweet compost; if, therefore, the latter has got into a bad condition, they should be turned out of their pots and the roots relieved of all sour material, rinsed in tepid water, and again repotted in good fibrous peat and fresh sphagnum moss in equal proportions. Other plants in good condition that require more rooting space should be transferred, without disturbing the roots, during bright weather, and especially after repotting they should be more heavily shaded, as Miltonias are very impatient of bright sunlight, too much of the latter quickly causing the leaves to turn yellow. This gives the plants an unhealthy appearance. Few Orchids are more subject to thrip or more quickly disfigured by them than *Miltonia Roezlii*; therefore, as the young growths advance fumigate the house with XL All about once a fortnight, and frequently sponge or dip the plants in soft soapy water or some insecticide.

IPSEA SPECIOSA.

This terrestrial, deciduous, tuberous-rooted Orchid should, after a long period of rest in a cooler temperature, be placed in the stove or warmer part of the Cattleya house. Immediately growth begins repotting should be done. Shake out the tubers and free them from all old material. Cut off the majority of old roots and flower-stems, prepare clean pots filled about one-third their depth with crocks or Fern roots, and over these place a layer of moss. Use a compost of peat and sphagnum moss, chopped to about an inch in length, leaf-mould and fibrous loam in equal proportions, with a small quantity of coarse silver sand, and mix the whole well together. Place some of the material in the pot upon which to lay the tubers, leaving sufficient room for the tubers to be slightly buried. When repotting is finished plant them so as to leave sufficient room for the tuber to develop properly. In working the compost, which should be pressed moderately firm, among them great care is needed to prevent the young growths being broken or in any way injured. Finish off level or a little below the rim of the pot. Apply water sparingly until the growths have further advanced, and the new roots taken to the fresh material, after which the plants should be syringed overhead once or twice a day, and never be allowed to suffer for want of water at the root.

THUNIA.

Thunia alba, *T. marshalliana*, and *T. Bensoniæ*, when they have finished their growth and passed out of bloom, should be allowed to become moderately dry at the root, and then removed to a very light position in a more airy, cooler temperature and drier atmosphere. Syringe occasionally to prevent the intrusion of insect pests, and give sufficient water to keep them plump until they lose their leaves, when but little will be required.

F. W. THURGOOD.

Rosslyn Gardens, Stamford Hill, London, N.

THE INDOOR GARDEN.

PELAGONIUMS.

PLANTS of the show and fancy sections should now be pruned. It is good practice to make two batches of them, therefore select plants that are thoroughly ripened, taking the show varieties first. Prune them back to two or three buds at the base of this year's growth for the weaker plants, or what are termed fancy varieties. These generally produce shoots more freely than the show forms, therefore cut away all the weak shoots in the middle of plants, and the stronger ones should be cut back to two buds only. After pruning place the plants in a cold frame standing in an open, sunny position. Syringe them morning and evening in bright weather.

CHRYSANTHEMUMS

will now require frequent attention to tying in the shoots, which must not be done too tightly. Attend to keeping the plants clean, and where green fly is troublesome syringe the plants with diluted Quassia Extract, in which a small quantity of soft soap has been dissolved, for unless the points of the shoots are kept clean the results will be disappointing. Earwigs, too, are a serious pest at this time of year. They must be trapped with short lengths of Bean stalks placed among the shoots, and which must be looked over two or three times a day. Remove them quickly and blow through them while holding them over a pail half full of hot water. The strong-growing varieties will dry more quickly than the weaker ones, hence the plants must not be watered in a routine manner, but the work should be governed by thoughtful attention. In like manner some plants will require a little stimulant long before others have filled their pots with roots, and until this is the case stimulants should not be given. Mildew in some places is becoming troublesome. On its first appearance lay the plant down on a mat and give it a careful spraying with XL All mildew wash diluted according to directions. On all dry days syringe the plants freely with clear soft water that has been exposed to the atmosphere for several hours.

BEGONIA SOCOTRANA.

This valuable species enjoys a long rest. The time has, however, arrived to stimulate it into growth by placing it in a warm, moist house or pit and giving the soil a watering. As soon as the young growth is half an inch to an inch long shake the old plants quite out and repot in light, rich, open soil.

MALMAISON LAYERS.

Prepare soil for potting up the layers into 3-inch pots as soon as they are rooted sufficiently, which should be the case in fourteen days from the time of layering. Take of good turf loam, with all the finer particles shaken out, two parts, fibrous peat pulled to pieces by hand one part, decayed Oak or Beech leaves one part, an 8½-inch potful of broken charcoal, and two of coarse silver sand to a barrowload of the mixture; this will make a good compost for the rooted layers, and if allowed to remain heaped in a shed for a week will then be in good condition. On lifting the layers for potting sever the old stem 2 inches below the tongue of the layer. Before potting it may be reduced to 1 inch. This will help to keep the young plant firmly in its position in the pot until root action commences. Press the soil around the young roots moderately firm and put a small stake to each plant as it is potted. Afterwards place them in a cold frame and not more than 6 inches from the glass. Give sufficient water through a fine rose to moisten the whole of the soil in the pot. Keep the frame rather close for two or three days and shade the plants with a piece of light tiffany.

Wendover.

J. JAKUES.

CHRYSANTHEMUMS.

DWARF-TRAINED SPECIMEN PLANTS.

CONTINUE to support and train out the growths as naturally as possible, and allow plenty of room between each plant, so that ample light and sun can reach them; stout, short-jointed growths will then result. The plants will now require plenty of feeding. Manure water made as advised for those which are being grown for producing large flowers will suit them well, also Peruvian guano, well diluted, and during showery weather apply slight applications of Clay's or some other approved patent manure. During bright days give frequent dampings overhead with tepid water, also keep the ground well damped round and about them. Allow no insect pests or fungoid growths to get established, but take the necessary means to arrest them.

STANDARDS.

These when well cultivated make excellent decorative plants for the conservatory. The unsightly method of training them on wire frames

and tying down the blooms to them, which was practised rather extensively some years since, did much to bring them into disrepute. When, however, the desired height is gained, and the heads are allowed to assume a somewhat natural habit, much in the same way as a standard Rose, they are very attractive. Especially beautiful are many of the singles and bright coloured Pompons. Good strong stakes will be necessary to protect them against wind, and the growths can be loosely but securely fastened to the same. These will also require plenty of feeding.

POMPONS, POMPON ANEMONE, AND SINGLE VARIETIES.

treated as bush plants, should by now be well rooted in their flowering pots and the necessary number of shoots formed. These are best when a suitable light is at command, grown in squares, and allowing ample room between each. One good stout stick only should be used as a support, and each shoot looped neatly to it. Grown in this way these make splendid decorative plants.

For cutting, the single varieties can hardly be excelled. Since the introduction of so many really fine varieties, both as to colour and form, these find many admirers, and, by late stopping, there is no difficulty in having them quite fresh even in midwinter, when flowers are generally none too plentiful. Small plants in 5-inch and 6-inch pots are also very serviceable, and any surplus plants may with advantage be potted on, and if liberally treated by paying strict attention to watering and feeding, after giving one stopping and selecting a good open position, they will well repay for the trouble. Allow from three to six shoots to the plant, according to the strength.

Early-flowering Pompon varieties which have been planted out with a view to lifting and potting should, after the buds are well set, be so treated. In the first place, make quite certain that the beds in which they are growing are thoroughly soaked. The soil and pots should be ready, and these, after allowing a good ball, should be placed in the smallest size possible. Thoroughly soak them in, place in a cold frame, shade and keep close for a few days, gradually giving air more freely, till they are safe to place in the open. Syringe several times during the day so that they are not allowed to flag. These will require plenty of feeding after once the plants become established, and should be slightly disbudded. Such varieties as Piercy's Seedling, White St. Crouts, Flora, and Mrs. Cullingford are very suitable for growing and treating in this way, and are well adapted for window boxes and many other positions where the more tender flowering plants fail to do well.

E. BECKETT.

Aldenhall House Gardens, Elstree.

FRUIT GARDEN.

HARDY FRUITS.

PEACH, Nectarine, and Apricot trees which have not been nailed or tied in must have immediate attention; keep the growths of the current year within bounds so that a fine autumn may ripen the wood. Before nailing is commenced stop all laterals and sub-laterals, and pinch the points out of growths which are likely to become too strong, and carefully guard against overcrowding by laying in a single shoot that will have to be cut away in the winter. If mulching has been neglected the use of strong stimulating manure, which does a great deal of good in hot seasons, may be dispensed with, particularly in cold districts, and a covering of fresh stable litter or old lime rubble substituted with advantage. Net Morello Cherries to protect the fruit from birds, but first of all see that the tips of shoots are free from black aphid, and, if necessary, repeat the dipping in Tobacco water. Prune and net Currants, but do not cut the young growths too short, as a moderate quantity of foliage protects the fruit from sun and rain, and favours its keeping well into the winter.

VINES.

Muscats now beginning to take their last swelling should have the inside borders well mulched with half rotten stable manure, the ammonia from

which will be found inimical to red spider, while its stimulating properties will benefit the foliage and draw many of the active surface roots to the influence of warmth and air, so essential to the perfect finish of this Grape. Keep a sharp look-out for scalding in the Lady Downe's house, should the weather continue as unsettled as it has been of late, and maintain a night temperature of 70° with a little top air and by ventilating freely through the day. To ensure the ripening of this and all the best winter Grapes by the middle of October the above temperature should be continued as the minimum, with a corresponding rise through the day, and if these cannot be secured from solar heat alone, steady firing, while it increases the size of the berries, will be found more economical now than sharp forcing with double the amount of fuel in the autumn. Encourage newly-planted Vines to make rapid growth by closing early. Keep the laterals pinched to one or two buds, stop the leaders when they have filled two-thirds of the trellis, and then allow them unrestricted growth to the end of the season.

STRAWBERRIES

promised a heavy crop of blossom, but the frost in the middle of April destroyed all the flowers then open and a great many of the most forward and best buds. The excessive wet weather that followed caused the plants to make too much foliage, with the inevitable result, undeveloped fruit of poor flavour. It is curious how much better some varieties have stood the adverse season compared with others growing side by side. Royal Sovereign, grown from earliest runners on specially prepared plants, planted on rich land as early as possible, gives the finest fruit fully ten days earlier than older plants; we seldom save them for a second crop. The new Laxton has also done well treated so. For mid-season crops we grow Burleigh President, Leader, and Trafalgar. These varieties, with the unbeaten Oxonian on the north border, are our sheet anchors in Strawberries, but, of course, grown on a different system and occupying the ground for two seasons and sometimes three. Burleigh President is an improved selection of the late Mr. Gilbert's. We consider it a favourite for late forcing on account of its fine flavour and firm texture.

Madresfield Court.

WILLIAM CRUMP.

THE KITCHEN GARDEN.

TURNIPS FOR WINTER.

A GOOD breadth of these should be sown about this date to stand the winter. They will produce good roots for use in the kitchen, and will also furnish a supply of wholesome greens in early spring. This crop may follow early Cauliflower, Peas, or Potatoes, and if the ground was fairly well dressed with manure for those crops none will be required for the Turnips. Fork over and clean the plot, then tread and secure a fine tilth to receive the seed. Drills should be drawn 15 inches apart and 2 inches deep, and the seed sown thinly. The two varieties I usually depend upon for this sowing are Red Globe and Chirk Castle. The last named is not attractive in appearance, but the flesh is firm and white, and it is exceptionally hardy. Not the least of its good qualities is the freedom with which it yields tender sprouts in spring.

CELERY.

The earthing up of the earliest rows of plants will by now have been commenced. It should not be followed up too rapidly; rather allow the plants to attain to a good size and then blanch them. This remark also applies to the main crop and late rows. These will now have made a good start, and they should be watered frequently and copiously. On fine days prepare the plants for earthing by weeding and cutting off side-shoots and leaves that are yellow. Quick growth is essential to Celery, and means should be taken to promote it by watering with liquid manure and soot-water.

CAULIFLOWERS.

To maintain an unbroken supply of these the plants that have been planted to firm successions must be kept watered and fed with an approved

manure or by mulching, for unless free, unchecked growth be maintained the heads will be small and strong in flavour.

RED CABBAGE.

Generally speaking there is not a large demand for this in private establishments, but where any are required for pickling purposes seed should be sown, and the plants put out in like manner to that advised for the ordinary Cabbage.

RUNNER BEANS.

This is an important crop in most gardens, and they well repay any extra attention bestowed upon them at this time and onwards. The aim should be to prolong the bearing season as long as possible, for when once these Beans are sent to the kitchen there is a big demand for them, and the dwarf sorts have to take a back seat. They are gross feeders, and will attain to a great height if well grown. A mulch of fresh manure will be of great benefit.

Stoneleigh Abbey Gardens. H. T. MARTIN.

SOCIETIES.

CARDIFF AND COUNTY HORTICULTURAL SOCIETY.

THIS society, which is affiliated to the Royal Horticultural Society, held its fifteenth annual show in the Sophia Gardens, Cardiff, on the 22nd and 23rd ult., and was honoured on the first day by a deputation from the Royal Horticultural Society, consisting of the Rev. W. Wilks, Mr. F. Lloyd, Mr. A. L. Wigan, Mr. J. Veitch, and Mr. S. T. Wright. The society is fortunate, through the kindness of the Marquis of Bute, in having such a beautiful and convenient place in which to hold its shows, and the utmost advantage is made of it by Mr. H. Gillett, its indefatigable secretary, and the committee. This year the schedule of prizes had been considerably extended, with the result that there was an increase of entries. Non-competitive groups of plants, cut flowers, &c., arranged by members of the trade, were extensive, and contributed greatly to make the show a success. Vegetables were shown in quantity and in excellent condition, both in the open and other classes, and fruit was fairly meritorious. A tent was set apart for Sweet Peas, which, for the season, were well shown, the leading exhibit being excellent. Table decorations, bouquets, and other decorative subjects were splendidly staged, but collectively Roses were weak. The Glamorgan-shire Bee Keepers' Association had a tent in the grounds, and the band of the Coldstream Guards was in attendance.

For cut flowers, Roses, twelve varieties, three blooms of each, the King's Acre Nursery Company, Hereford, secured the leading place with good blooms for the season; Mr. Crossling, Penarth, was a close second.

Twenty-four blooms: First, the King's Acre Company; Mr. Stephen Tresseder, Cardiff, was a good second.

Eighteen teas: The King's Acre Company again took the leading position.

For twelve, any variety, except Tea and Noisettes: First, the King's Acre Company with A. K. Williams.

Twelve either Tea or Noisette: Here again the King's Acre Company took first with The Bride.

Collection of Roses in space 6 feet by 3 feet. With a capital lot of good varieties, Mr. Crossling here took the lead, Mr. S. Tresseder a near second.

Collection of hardy flowers: Only two exhibitors staged in this class, and of these Mr. W. Tresseder, Cardiff, secured first place with a splendidly arranged exhibit of choice herbaceous subjects. Messrs. Stokes and Son, Trowbridge, also had an almost equally good stand, in which they had a fine new blue, free flowering dwarf Campanula named Hillside Blue, a cross between C. pyramidalis and C. carpatica.

Collection of Carnations and Picotees, 6 feet by 3 feet: This was an excellent class, in which Mr. Pike, Llanllyfenni took the coveted position, followed closely by Mr. W. Tresseder.

Sweet Peas: In a class of eighteen distinct sorts, four exhibitors staged good collections, and of these Messrs. Jarman and Son, of Chard, had the best; Mr. Jones, gardener to Sir Thomas Morel, was placed second.

Twelve vases: Mr. Adey, Penarth, took the lead here with a beautiful stand; Mrs. Jenner, Wenvoe, was placed second. There were six entries.

Twelve varieties: Prizes offered by Mr. Sydenham of Birmingham. Here Mrs. Jenner was placed first, Colonel Sandford second, and Dr. J. L. Thomas third.

Six vases: First, Mrs. Jenner; second, Sir Thomas Morel. A single vase of three varieties made a good class, the chief place being taken by Mr. W. T. W. Lewis, Llandaff; Mrs. Jenner second. For a basket of Sweet Peas, Mrs. Brukevich took the lead.

PLANTS.

Two stove and greenhouse plants in bloom and two ornamental foliaged plants: First, Mr. Cypher, Cheltenham; Mr. Carpenter, gardener to W. J. Buckley, Esq., was second. Six dinner table plants: Mr. Bastin, gardener to Sir A. Henderson, was placed first in this class amongst eight competitors, and Mr. Wall, gardener to Mrs. E. Davis, Llandaff, second.

Groups of plants, 150 square feet: Mr. Cypher, who arranged a splendid group in his well known manner, easily took the lead, Mr. Carpenter coming second with a fairly good exhibit. Group 50 square feet: Amongst four who entered in this

class, Mr. Wall took chief honour. Mr. Carpenter was second with light graceful groups. Mr. Waldron, Llandaff, was first with a group of 25 square feet.

DINNER TABLE DECORATIONS.

For a table 8 feet by 4 feet, arranged with fruit and flowers, Miss Ellis won leading honour, with a light pretty display of Aquilegia and Asparagus, arranged in vases; Miss Crouch was placed second, with a table dressed with Shirley Poppies and pink Ivy-leaved Geraniums, but the vases used were large for the size of the table. The last-named exhibitor, however, secured the lead for a table 3 feet 6 inches by 4 feet, and used similar flowers in each case; Mrs. Ainsley was a good second.

Bouquets and similar subjects were best shown by Mr. W. Tresseder, who took first place in the following classes—namely, bridal bouquet, bouquet with Orchids excluded, bouquet of Roses, two baskets of flowers, one basket of flowers, and a lady's spray. These exhibits were excellent in their way, and were greatly admired.

VEGETABLES.

These were splendidly shown, both in the open, amateur, and cottagers' classes.

Collection of nine dishes: First, Mr. Beckett, gardener to Lord Aldenham, with a superb lot, comprising Red Rocco Onion, Pea Duke of Albany, Cauliflower Early Giant, New Intermediate Carrot, Potato Snowdrop, Tomato Sutton's Perfection, Pea Duke of Albany, Globe Artichoke, Canadian Wonder Bean, and Vegetable Marrow Pen-y-Byd. Mr. Bastin, gardener to Sir A. Henderson, Buscot Park, was deservedly placed second.

Six dishes: Prizes given by Messrs. Sutton and Son: First, Mr. Bastin, with a strong exhibit.

Six dishes: Prizes offered by Messrs. Webb of Stourbridge. Here Mr. Beckett again led, with grand dishes of Cauliflower Early Mammoth, Tomato New Vicory, Potato Motor, Pea Stourbridge Marrow, &c. Mr. Bastin was a good second.

FRUIT.

Collection of six varieties: Mr. Bastin was a good first with Pine-apple Nectarine, Grape Black Hamburg, Brown Turkey Fig, Royal George Peach, Latest of All Strawberry, and Best of All Melon.

The Affiliated Societies' Challenge Trophy (silver bowl) was secured once more by the Margam district, the Llanllyfenni district second, and St. Fagans third.

THE ROYAL HORTICULTURAL SOCIETY'S MEDALS

were awarded as follow: Gold to Mr. Farmer, Cardiff Castle Gardens, for group of stove and greenhouse plants, and to Messrs. Hill and Sons, Barrowfield Nursery, London, for a grand collection of Ferns. Silver-gilt Flora to Messrs. Blackmore and Langdon, Bath, for Begonias, and to Mr. Cypher for group of plants. Silver Flora to Mr. Carpenter for group of plants, Messrs. John Russell for group of ornamental shrubs, Mr. W. Tresseder for collection of herbaceous flowers, the King's Acre Nursery Company, Hereford, for Roses, and Messrs. B. R. Davis and Sons for collection of Begonias. Silver Knightian to Mr. Farmer for Vines fruiting in pots, Mr. Bastin for collection of vegetables, and Mr. Beckett for collection of vegetables. Silver Banksian to Mr. Brown, gardener to J. Howell, Esq., for specimen Ferns, Messrs. Barr and Son for hardy flowers, Mr. M. Prichard for hardy flowers, and Mr. John Waterer for ornamental trees and shrubs in pots. Bronze Flora to Messrs. Stokes and Sons for hardy flowers. Bronze Banksian to Mr. Jones, gardener to Sir Thomas Morel, for Sweet Peas, Messrs. Jarman and Co., Chard, for Sweet Peas, Mr. Mellens for flowering plants, Mr. J. E. Deacon for vegetables, and Mr. F. Maers for vegetables.

CROYDON AND DISTRICT HORTICULTURAL SOCIETY.

PROGRAMME OF MEETINGS FOR 1903.

August 18, "Summer Pruning," by Mr. A. Maalen, Bramley Hill House Gardens, Croydon. September 1, "Discussion on Floral Decorations, with Demonstrations." Members are invited to make a display of floral designs. September 15, "Cryptogamic Plants," by Mr. G. W. T. Shrubhall, Ion Nursery, Thornton Heath. October 6, "Horticulture in America and Canada" (illustrated), by Mr. J. Cheal, Crawley. October 20, "A Year's Work in the Vineyard," by Mr. W. Taylor, Tewkesbury Lodge Gardens, Forest Hill, S.E. November 6 (Friday), "Fruit Bottling," by Mr. R. B. Leech, Wood Hall Gardens, Dulwich, S.E. Lady friends of members cordially invited to this lecture. November 17, "How Plants Grow," by Mr. H. O. Etherington, manager J. R. Box's nurseries, West Wickham. December 1, "Selection of Winter and Spring Flowering Trees and Shrubs," by Mr. F. Humphreys, Royal Horticultural Society's Gardens, Chiswick. December 15, "Some Gardens I have visited" (illustrated), by Mr. J. Gregory, 60, Canterbury Road, Croydon.

Note.—The committee desire it to be known that a register is kept for the members' use, and any who are requiring situations should give particulars to the hon. sec.

Members are particularly invited to bring exhibits to the meetings. Essays for competition are invited from members under twenty-five years of age. Hon. Sec., Mr. Harry Boehler, 62, High Street, Croydon.

BOOKS.

Orchids: Their Culture and Management (Upcott Gill, Strand).—This book is well known. Its appreciation by those who require simple advice about the growing of Orchids is the test of its worth, and that an entirely revised and greatly enlarged edition should have been called for is further evidence of its

popularity. As many will remember, the first edition was written by Mr. Watson, curator of the Royal Botanic Gardens, Kew, but owing to the pressure of official duties he could not undertake the arduous work of revision. This has been entrusted to Mr. Chapman, whose great knowledge of Orchids fits him for so important a task. There are many illustrations, several very good coloured plates, and an excellent list of references to where coloured and other drawings can be found of those species, varieties, or hybrids not figured in the work. There are about 550 pages of well printed texts and copious lists of hybrids and crosses with their parentage. It is as complete and simple a guide to Orchid culture as the beginner or anyone else can desire.

The Book of the Daffodil.—A capital little book about the Daffodil, which has grown out, as the author says, "of a paper on the 'Cultivation of the Narcissus in Gardens,' read before the Royal Horticultural Society in the year 1900 (Journal of the Royal Horticultural Society, vol. xxv., page 39)." There are chapters upon every conceivable phase of this beautiful flower, and all we can say to those who want to know all about Daffodils is "buy it." The following words of the author are so truthful that we repeat them: "It is a flower we cannot do without, this Daffodil or Narcissus. Whether after the popular manner we adopt the prettier and more easily pronounced word and call it 'Daffodil' (though 'Daffodil' is really only a sectional name), or whether with more scientific people we keep to the well-established name of the genus and speak of it as the Narcissus, it is a plant which the ardent gardener feels he must grow as soon as he sees it in some of its finer forms. It is a plant which has asserted itself much of late and with good reason. Its numerous varieties supply a very real need in our gardens, and occupy a prominent position in the year's procession of beautiful flowers growing hardily in the open ground; they delight us at a time when cut flowers from the open border are very scarce; many of them rival in beauty the choicest treasures of the greenhouse and hot house. With accommodating persistence they bloom in succession for nearly a quarter of a year—i.e. (in ordinary seasons) from the beginning of March to the middle of May—without exacting from us any trouble and expense in supplying them with artificial heat; when cut their flowers (most of them) last in water for ten days or even more, and although there is a certain amount of truth in the objection that it is easy from a large collection to pick out a number of sorts which are rather similar in character, it is still easier to select a very large number which are far more distinct from each other than Rose from Rose and Carnation from Carnation."

Bulletin of the French Horticultural Society of London.—We little thought thirteen or fourteen years ago that this society was destined to make its way in the world to such an extent as it has done. The Bulletin for the past year is recently to hand, and this, with past issues, proves what may be done by a few earnest workers who can combine ability with industry and enthusiasm. A substantial volume of 164 pages contains the records of last year's work, and it must be gratifying to everyone concerned. Thanks to the encouragement given to the society by the various organs of the English horticultural Press, the aims of the French Horticultural Society of London are now fully known and appreciated, a fact easily recognised by those who attend its annual gatherings. The genial president, Mr. George Schneider, has given much time and wise supervision in the management of the affairs of the society, and has been aided by many of his compatriots in the work. The result is that many young Frenchmen, Belgians, Swiss, and others have been able to spend a period here in England to complete their horticultural education, and that some young English gardeners have been enabled to make a stay on the Continent for a similar purpose, who would probably never have had the opportunity but for this society. Financially and numerically there appears to be considerable

* "The Book of the Daffodil." By the Rev. S. E. Bourne. Lane, Vigo Street. Price 2s. 6d. net.

increase. Most of the well-known horticulturists at home and abroad are recognised supporters, and the young men who avail themselves of the society's influence go forth to occupy prominent positions in the world and to follow honourable and responsible careers. The volume contains amongst other things a portrait of the late Charles Maries, the rules of the society, a list of the books in the library, and reports of the monthly meetings, with the text of papers read by the members, many of which are interesting and instructive. Some of the subjects dealt with are "The English Culture of *Hydrangea hortensis*," "The Chrysanthemum," "Dwarf Roses," "Useful Plants in Senegal," "Euphorbia pulcherrima," "Nepenthes," "Indiarubber," "Cider Apples," &c. The headquarters of the society are 66, Long Acre, W.C., and every information concerning it can be obtained from the secretary upon application by letter.

THE KITCHEN GARDEN.

SOWING CABBAGES FOR EARLY SPRING CUTTING.

FROM July 20 to the end of the month is an important date for growers of vegetables who value the early supply. Personally I think a small Cabbage in March far preferable to a coarser one two months later. Opinions differ as regards dates of sowing, but so far we have had the greatest success from July sowings if the seed bed is not crowded and freely exposed. There are other points, for instance July at times is hot and dry, and I have known the seeds remain dormant for some time. This affects the season, as it must retard growth greatly. I am aware there are other difficulties, such as in wet or showery seasons, the seeds sown too early make a coarse growth, but even then there are two courses to pursue. It is not necessary to rely upon the largest plants in a good sized seed-bed, as there are always a number of small ones. To prevent waste the large plants may be planted rather close and cut over for autumn greens. There are other considerations, for instance the dates of sowing will not be the same in all parts of the country. It will be better to make two sowings or even more than one large one at the same date in Scotland and in Cornwall, and in any southern county two sowings are best, as then there is a much longer supply, the second sowing taking place from August 10 to 15.

I am not in favour of later sowing, as should we get an unfavourable autumn or winter the plants suffer badly, and the season of cutting is much retarded. I well remember birds eating the seed many years ago. They are most troublesome if not checked, and at times the seed is blamed. I think the early Cabbage crop is one of the most important to the gardener, as the quality in March and April is far better than in June and July. What is wanted is a sturdy plant. These placed in their growing quarters when not too large are much better than those put out later, and the plants are three times the size. I am also an advocate for firm planting, as loose or thin soil promotes a rapid growth at the start. This is cut down later on. It is also important not to sow the seed or grow the plants on land just cleared of a Brassica crop. If possible give a few seasons' rest, as by so doing there will be less fear of club and other pests. An open quarter gives the best return.

G. WYTHES.

MARROWS AND MANURE.

THERE is nothing much harder to kill than an old garden custom, and it is curious how certain of these have established themselves in relation to the culture of garden crops. I have no idea who the gardener was that first devised the idea of growing Vegetable Marrows on a manure heap, but he certainly got a following, and, by the way the practice is followed, it might seem as though Vegetable Marrows refuse to grow under any other conditions. But it is all a fallacy; the Vegetable

Marrow is no more in need of a heap of manure to grow in than any other plant, and why gardeners should stick so closely to the custom is a puzzle to me. In scores of instances the heaps of manure that have been used for making hot-beds are retained, and, after placing a barrowful of soil on the top for planting in, the Marrows are left to root away of their own free will in the manure beneath.

I will admit that this is a good method if one wants to grow giant leaves and plenty of stem, but manure-heap grown plants never last so long nor fruit so freely as those grown under more natural conditions. For my part, I prefer to grow Marrows in a good piece of ground in the open garden, where they get the influence of the sunshine. By this I do not suggest going to the opposite extreme and growing the plants on a poverty-stricken principle, but take out a barrowful or two of soil, shovel some decayed manure in the hole, replace the soil, and then plant. Less rampant growth and smaller leaves are the result of this treatment, but the plants are not so liable to fail in dry weather, and continue fruiting longer than manure-grown specimens. Another mistake often made with Marrows is that of growing them in some out-of-the-way corner of the garden that would not be considered good enough for anything else. Even under such conditions they are not always disappointing, but, considering that the Marrow is one of the most acceptable and useful vegetables in the garden, it is deserving of a good position and proper treatment at the hands of the grower.

G. H. H.

Floods in the Lea Valley.—Amongst the many sufferers from the recent floods, probably to none has the result been more disastrous than to Mr. F. Scholes and his brother, who occupy some four acres and a half of land near Lea Bridge Station. Owing to the proximity of the local gas works, the flood water was charged with ammoniacal liquor and other deleterious refuse, and the destruction of their growing stock, consisting of hardy perennials, &c., is most deplorable, the loss being accentuated by the fact that the seed-beds, from which the land would be planted, have suffered greatly. Dismayed by the trouble by which they have been overtaken, Messrs. Scholes have appealed to me to know if anything can be done to assist them, and, having seen how great is the destruction, I am sending this statement, and would deem it a favour if you would insert it in your valued journal. I shall be pleased to acknowledge any sums your generous readers may send to me, and will ask a few prominent growers to associate themselves with me in the disposition of the fund.—H. B. MAX, *Dyson's Lane Nursery, Upper Edmonton, N.*

Mr. W. Pope.—We are very sorry to learn that Mr. William Pope, the widely-esteemed head gardener at Highclere Castle, Newbury, the Berkshire seat of the Earl of Carnarvon, has met with rather a serious accident. Mr. Pope was cycling recently, and had the misfortune to fall and break his thigh. At a meeting of the fruit and vegetable committee of the Royal Horticultural Society (of which Mr. Pope is a member and regular attendant) on Tuesday last a vote of sympathy was passed with him, and the hope expressed that he would make good progress towards recovery.

Rosa rugosa × Polyantha.—This is a natural hybrid, and partakes of the tree or bush-like habit of *rugosa*. The flowers are white with curious serrated margins, and borne in terminal conical trusses; it is perfectly sterile, and has the delicious fragrance of *Rosa polyantha*. Here it forms a tree 7 feet high by as much through.

Iris ochraurea (see page 38).—The flowers sent were not *I. ochroleuca*, but a cross between that species and *I. aurea*. Its flowers are larger than either, and the colouring is midway between the two, whilst it is a week or ten days later than *ochroleuca*, and, as seen growing side by side, a better plant.—T. SMITH, *Newry*.

A cottage and amateur gardening competition.—It is pleasant to know that the enthusiasm of Lady Algernon Gordon-Lennox, who

started "The Cottage Garden and Amateur Horticultural Competition" for the counties of Oxfordshire, Northamptonshire, and Warwickshire, is having its full reward. The next display takes place on Monday next, the 3rd inst. (Bank Holiday), at Broughton Castle, which is two miles and a half from Banbury, Oxon. The most valuable prize is the "Lennox" Challenge Cup, value 50 guineas, to be held by the society gaining it for one year. Should any society succeed in winning it three years in succession it will become their absolute property, and it is interesting to know that the cup is at present held by the Banbury and District Horticultural Union. The object of this horticultural competition is to encourage a keener spirit of rivalry than already exists amongst the members of rural horticultural associations and societies, and also with the hope that an impetus may be given to the labours of all those who, while keenly interested in horticulture and the cultivation of allotments, have yet little opportunity of being brought into contact with other districts, and thereby judging of what is being accomplished elsewhere. There is no desire whatever to interfere with local flower-shows, but rather to stimulate interest in them. In Lady Algernon's district round Banbury it has been proved that the produce required for the cup collection has in no way detracted from the quantity or quality exhibited at the local shows, but that the societies have benefited by the prizes which the Banbury and District Horticultural Union has offered to the various societies in affiliation with it. A short conference will take place during the afternoon of the show. We wish Lady Algernon Gordon-Lennox success in her interesting and instructive work. Anything that tends to the bettering of the rural population deserves the heartiest support, and we hope the excellent example set may be followed in other country towns. Miss Willmott is working in much the same way at Warley.

Hemerocallis citrina, Baroni in N. giornale Bot. Ital. IX.—There are evidently two distinct and different plants in cultivation under the above name, both of which are now in flower in my garden, and from what I can learn I think one of them must be a species from Lun Tan in China, by the late Padre Giraldi, and the other probably a garden hybrid. I received the species from a new plant collector at Naples, who said its flowers opened in the evening, instead of, as the flowers usually do, in the early morning. In this, however, he was wrong, as my first flower opened in the early morning. The other variety came to me from a well-known English nurseryman, and opened its first flower on the evening of the same day. The plants mainly differ in their habit of growth, the colour of their buds before opening, and the size of their flowers. The species is a much stronger grower, with foliage of a deeper shade of green, and much broader than the other; it is also of a much more caulescent habit. Its stem is much stronger and taller, being 3 feet 5 inches in height, whereas the other flower-stem is only 1 foot 10 inches high. The former bears sixteen flower-buds with distinctly black tips, while the latter has only five buds, which are entirely green. The length of petal of the flower of the species is 5 inches, that of the hybrid just over 2 inches, but the flower is more perfect and perhaps more beautiful, from the petals being broader and more nearly approaching one another than those of its larger but somewhat unevenly-formed brother. The colour of both is almost identical—namely, a clear pale canary yellow. I consider both of them to be acquisitions to our gardens, and the species is said to be the hardiest of its family.—W. E. GUMBLERON.

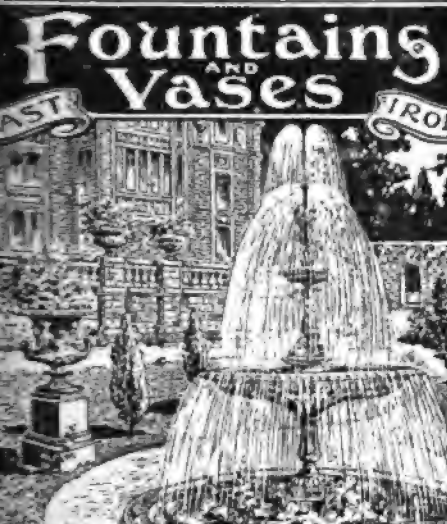
Violas in Regent's Park.—Hundreds of people are delighted with the Viola bed in this park. The happy combination of big irregular-shaped masses of some of the most distinct and showy of these plants, placed as they are on an undulating mound, is worthy of imitation. It is the bold clumps of irregular sizes, or a big, gently sloping mound, that creates the surprise, and in which such sorts as Molly Pope, William Neil, Sylvia, and Blue Diamond figure most conspicuously.—VISITOR.

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Chironia exifera.—When visiting Impney Hall Gardens, Droitwich, recently my attention was drawn to this plant by Mr. Jordan, the gardener there. It is grown in some quantity at Impney, and proves invaluable for indoor decoration. This plant, which belongs to the natural order Gentianaceæ, grows from 2 feet to 3 feet high. It has pretty grey Carnation-like leaves, and bears freely roundish purple-pink flowers about half an inch across. Not only do the plants make a good show, but flowers are produced over a considerable period. Mr. Jordan propagates this plant by means of cuttings, and finds no difficulty in doing so. By inserting cuttings in March, June, and July a succession of bloom is had during the following summer. The greenhouse is often at its worst during the summer and early autumn months, and *Chironia exifera* is just the plant that is wanted. The flowers make an exceedingly pretty table decoration, and they are also most useful for mixing with groups of plants in the house or elsewhere. On several occasions in prize groups at some of the provincial exhibitions, where the arrangement of plants for effect is an important feature, I have noticed this plant has been used. Good use has also been made of it in some of the decorated dessert tables at York and other large flower shows, and many have asked its name. This note may serve to recall the plant.—A. P. H.

A novel dinner-table decoration. This may well describe some good work carried out recently by Messrs. G. W. Bellgrove and Co., Fulham Palace Road, Hammersmith, at the residence of Mrs. Avery, 31, Grosvenor Square. In the centre of the table was an artificial lake filled with gold fish and the best varieties of Water Lilies, the centre piece being of rare shells with electric lights inside. The outside of the pan was hidden by a mass of water weeds and grasses, also electric lighted. A canopy of Bamboo was a striking feature. This measured 20 feet by 8 feet, and was covered with *Wistaria*, *Clematis* (ranging from mauve to dark blue), *Convolvulus*, and *Apple blossom*. These flowers were artificial, and were obtained in Paris, and well illustrated the pitch of perfection to which our neighbours across the Channel have carried this class of work, so natural were they in appearance.—Quo.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 30, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Names of plants.—F. W. Harris.—*Phlomis fruticosa*.—M. H.—The crimson flower is *Spiraea palmata*, and the other *Diplocephalus chrysophyllus*.—Geo. Barham.—1, *Melia Azedarach*; 2, *Veronica speciosa* var.; 3, *Valeriana officinalis*; 4, *Lepidium Smithii*; 5, *Jasione montana*; 6, *Stachys palustris*.—M. P. Lenox-Conyngham.—The one-leaved Ash (*Fraxinus excelsior heterophylla*).—C. E. Fletcher.—*Amelanchier vulgaris*.—Belbroughton.—Roses: A, *Florea*; B, *Devoniensis*. The leaf is that of *Cladrastis tinctoria*.—C. L. Adams.—The Rose is *Florea*.

Vine leaves withered. (A. D. R.).—The leaves and stalks of the specimen leaves sent for our inspection are dried up and dead. As you say that the foliage of one Vine was completely destroyed in this way and others more or less affected, and that the damage occurred in one night, without knowing something of the general health of the Vines and the conditions under which they are grown, it is difficult to suggest a cause for so sudden a collapse. All we can do is to call to mind cases somewhat similar which have come to our notice before and draw certain deductions. By the size and substance of the leaves sent we should conclude that the Vine affected had been in an indifferent condition of health for some time, and that the extreme heat of the past few weeks has proved too much for its enfeebled constitution to stand, coupled with the fact that the leaves are infested with red spider, hence the sudden breakdown. We have also seen similar results brought about by a too strong application of some insecticide. You will know whether this will apply in your case. Your best course to

pursue now will be to shade the glass over the Vines with a thin coating of lime water whilst the weather continues so hot. Give abundance of air night and day, and towards the end of October take away a portion of the old border and substitute with new soil. By this means new vigour will be imparted to the Vines and their health re-established in due course.

Tall Lilies in succession, &c. (J. McDONALD).—Suitable Lilies for the purpose you name are *Lilium auratum*, 4 feet to 5 feet, July and August; a. *platyphyllum*, 5 feet to 6 feet, July and August; *candidum*, 4 feet to 5 feet, June and July; *croceum*, 3 feet to 5 feet, June and July; *exceolum*, 4 feet to 6 feet, June and July; *Henryi*, 8 feet to 8 feet, August; *longiflorum* (Japanese bulbs), 8 feet to 4 feet, July; *avotizianum*, 3 feet to 5 feet, end of May and in June; *speciosum Kretzeri*, 3 feet to 4 feet, August and September; a. *Melpomene*, 3 feet to 4 feet, August and September; a. *roseum*, 8 feet to 4 feet, August and September; *tigrinum splendens*, 5 feet, end of July and in August; *umbellatum erectum*, 2 feet to 3 feet, end of May and in June. All of the above Lilies will give a good display the first season after planting, except *L. avotizianum*, which needs to be thoroughly established before it is seen at its best. *Lilium candidum* requires to be planted soon after the flower-stems decay, that is, by the middle of August at the latest. With regard to the plan sent, the two narrow serpentine beds flanking a group of specimen *Pyrus* appear to us very suitable for the position. The ground beneath the *Pyrus* may be carpeted with *Chionodoxa Lucillie* or *Scilla sibirica*, thus imparting a pleasing bit of colour early in the season. Of the flowers you name, exception may be taken to the Japanese Iris, which need a much moister soil than any of the other subjects you mention. A selection of the better German Iris might be substituted, or some members of the bulbous-rooted Spanish and English Iris would form a good succession to the early Tulips. A group of *Hyacinthus* (*Galearia*) *candicans*, associated with bright-coloured *Gladioli*, forms a showy feature in August. The *Tritomas* or Torch Lilies are worthy of consideration as late season flowers.

Insects on Broom. (J. C. GARNETT).—The little creatures infesting your White Broom are not ticks, but one of the mites belonging to the Oribatidae, or "beetle mites." They will not injure the plant in any way, but if you want to get rid of them, spray the plant with paraffin emulsion, or some other insecticide of a similar nature.

Iris. (Miss E. L. MAW).—We believe you will find the many forms of the Flag Iris, *I. germanica*, best suited to your purpose. These are so showy and varied. The best time for planting is April, that is, for planting and dividing; next to this, quite early in September. It is not necessary to keep the rhizomes on the surface, but if buried partly they will rise, or the soil will settle about them. Do not attempt planting large tufts, as from three to six to form a patch or group are much better. The following are good and free flowering: Mrs. H. Darwin, nearly pure white; aurea, golden; Darius, yellow; L'Innocence, pure white; Arnold's, smoky bronze; Mme. Chereau, white, with violet lines; pallida, very fine pale blue; pallida dalmatica, a larger flower than the last and darker, very handsome; Queen of May, rosy lilac, very beautiful; Walner, azure blue; Dr. Bernice, crimson and bronze; Chelles, yellow. Other suitable ones are *I. ochroleuca*; *I. aurea*, the species, not No. 2 of the above selection; *I. missouriensis*; *I. Monspur*, &c. You could also try a few of the bulbous Spanish Iris that flower later than the foregoing, and that lovely yellow *I. juzeau*, a most valuable bulbous kind. All the Spanish Irises are much at home in a rather dry place, or at least well-drained soil.

American blight. (AMATEUR).—We understand and appreciate our correspondent's difficulty. The condition of the Apple trees, although it is as bad as it well can be, does not appear beyond hope of improvement. Had the condition of the lease permitted, the better and more successful way, no doubt, would have been to grub up the trees and plant young, clean, and healthy stock. Should some of the trees be very decrepit we should advocate cutting down and regrafting on the old stem (see illustrated article on "Grafting" March 21, 1903). This, we presume, could be done without contravening the conditions of your lease. By this treatment you would secure new, healthy, vigorous, and fruitful trees in a comparatively short space of time (three or four years). Apart from the above suggestions, we give you the best advice at our disposal. In the first place undiluted paraffin should never be applied to the bark of fruit trees. If used in this strength to any extent over the whole tree it is bound to do much harm, will cripple the trees for years, and in some cases will kill them outright. As regards the pruning of the trees, you are quite right in taking the means you suggest, namely, as soon as the leaves have fallen in the autumn to cut out all dead wood and to shorten back the worst branches to where they are healthy. Healthy young growths will proceed eventually furnishing the tree with branches. We would not advise cutting too many branches out in one year, but a few each year over a number of years. Cut the affected part carefully from the branches left with a knife, taking care, of course, not to cut beneath the bark of the tree. As soon as the pruning of the trees and the cleaning of the blighted parts is finished the prunings and scrapings should be carefully collected and at once burned. Burn also at least 1 inch of the surface soil as far as the tree branches extend. The next proceeding should be to wash the trees, scrubbing them well all over with warm soapuds, or in the absence of this with soft soap and warm water (a wineglassful to a gallon of water). Afterwards paint the trees with the emulsion below mentioned. So much as regards the tree above ground. To bring the trees back to health and fruitfulness the roots must have some attention also. Should the trees be growing on grass land the turf round the stems must be cleared away to a distance of 4 feet all round, and substitute a layer of rich, well-rotted manure. The rains in the course of the winter will wash down the ammonia from this manure, stimulating and nourishing their roots, and an occasional watering during winter with manure water from the stable or cow yard will do much

good. If the trees are growing in cultivated (not grass) land the same remarks are applicable. The following year, and perhaps succeeding years, the American blight will cease to make its appearance more or less. The cultivator should be on the watch and apply the emulsion to the affected parts with a brush. If this vigilance is continued for a few years complete immunity from this dreadful pest may be obtained. Emulsion: To a gallon of hot water add the following ingredients— $\frac{1}{2}$ lb. soft soap, $\frac{1}{2}$ lb. black sulphur, $\frac{1}{2}$ pint tobacco juice, and $\frac{1}{2}$ pint of paraffin. Mix all together in a mortar. Dilute by adding 2 gallons of warm water, making 3 gallons in all, before using.

Grafting. (AMATEUR).—We are glad to hear that our recent illustrated article on grafting has been of assistance to our correspondent, and that complete success in his case has followed on the instructions given. With reference to the question of taking off the clay, we would advise that it be retained for another three weeks or a month, while the sun is hot and evaporation rapid. It may be taken off towards the end of August. The grafts must be supported by stakes immediately the clay is removed, or they may be shaken by rough winds and the cohesion of stock and graft destroyed. Stakes for this purpose may be firmly secured to the stem of the tree and the grafts tied to them, or longer stakes driven in the ground will answer the same purpose. These supports should not be moved until the grafts are properly secured to the stock.

Verbascum. (W.).—The flowers of your *Verbascum* were badly withered on arrival, which made it impossible to identify them correctly, especially as no leaves were sent; it, however, looks to be very near *V. Chalcidii*, probably a hybrid, with that species as one of the parents. Bees probably carried pollen from some other garden. It is hardly worth submitting to the Royal Horticultural Society for a certificate, but there is no harm in doing so.

Peach and Nectarine fruits falling. (J. B. P.). We never remember a season when complaints of Peaches and Nectarines dropping their fruit before completing the process of stoning have been more general than they are this year. We notice that the complaints are more common as regards crops in late houses, early and mid-season crops not being so generally affected. The cause of the trouble we think must be attributed to the cold and sunless season of 1902, resulting in the failure of the proper maturation and ripening of the young shoots, this again resulting in the following spring in the production of weak and unfertile flowers—flowers with little or no pollen on the anthers—and consequently quite incapable of producing fruits. The bloom would apparently set alright, and swell to a certain size, but through imperfect fertilisation, when the stress of stoning time came round, the fruit would suddenly collapse and drop, as in our correspondent's case. All the specimens sent for our inspection, after cutting, were found to have partly-formed stones and all decayed. One of the most important precautions to take to avert similar failures in the future is to take care that the young shoots of the current year's growth (which are the fruit producers of next year) are not overcrowded by useless lateral and other growths, preventing their full exposure to all light and air possible. Another is to take particular notice in the spring, when the trees are in bloom, if the blooms are strong with plenty of pollen on. When this is the case a perfect set is assured, but when the flowers are weak and deficient in pollen, then patient and persistent artificial fertilisation must be resorted to by drawing a rabbit's tail over the flowers once or twice in the middle of the day when they are dry.

Garden names for certain plants. (CONSTANT READER).—There are no garden names for the plants mentioned, and all three would be difficult to obtain from nurseries. *Spiraea digitata* is a herbaceous species; native of Siberia. *Salvia virgata*.—This might be termed the Twiggy Sage. *Aconitum Cammarum stoeckianum* is a form of the Monk's Hood or Wolf's Bane.

ERRATUM.—Carnation Show, Drill Hall. Mr. Francis Wellesley, Westfield Common, Woking, writes: "An error has crept into your otherwise excellent report of the Carnation show. The first prize for twenty-four flakes and bizzars was awarded to me, and not to Mr. Thomas Lord." We well remember the stand, and congratulate our correspondent upon the beauty of the flowers exhibited.

TRADE NOTES.

THOMAS METHVEN AND SONS, nurserymen, seedsmen, and florists, 15, Princes Street, and Leith Walk, Edinburgh, have had the honour of receiving from the Lord Steward a Warrant of Appointment to his Majesty the King. The firm formerly held a warrant from her late Majesty Queen Victoria.

MESSRS. W. H. HUDSON, Chiswick, London, W., desire us to state that their seed, bulb, and Japanese Lily business is entirely carried on at 34 to 38 Chiswick High Road, London, W. The local retail shop at 199, High Road, Kilburn, has been disposed of to Mr. Golding, and has now no connection with Messrs. Hudson. All orders by post should be addressed to the Chiswick address.

PUBLICATIONS RECEIVED.

WE have received from Messrs. George Newnes Part XIV. of "The Century Book of Gardening." This deals with stove and greenhouse plants and Orchids. *The Wide World and The Captain* magazines for August are very bright, and make healthy reading for the summer holidays. *The Studio* for July is as bright and interesting as usual. Its contents are always varied.

CATALOGUE RECEIVED.

Bulbs.—Messrs. T. Methven and Sons, 15, Princes Street, and Leith Walk, Edinburgh.

*. The Yearly Subscription to THE GARDEN is: *Inland*, 15s.; *Foreign*, 17s. 6d.

THE GARDEN

No. 1655.—VOL. LXIV.]

[AUGUST 8, 1903.]

THE GROUPING OF TREES.

IF this subject were considered with only a reasonable amount of thought, and the practice of it controlled by good taste, there is nothing that would do more for the beauty of our gardens or grounds. Nothing can so effectually destroy good effect as the usual senseless mixture of deciduous and evergreen shrubs that, alas! is so commonly seen in gardens—a mixture of one each of a quantity of perhaps excellent things planted about 3 feet apart. There would be nothing to be said against this if it were the deliberate intention of any individual, for, as a garden is for the owner's happiness, it is indisputably his right to take his pleasure in it as he will, and if he says, "I have only space for a hundred plants, and I wish them to be all different," that is for him to decide. But when the mixture is made from pure ignorance or helplessness it is then that advice may be of use, and that the assurance may be given that there are better ways that are just as easy at the beginning, and that with every year will be growing on towards some definite scheme of beauty, instead of merely growing up into a foolish tangle of horticultural imbecility.

If the intending planter has no knowledge it is well worth his while to take advice at the beginning; not to plant at random and to feel, a few years later, first doubt, and then regret, and then, as knowledge grows, to have to face the fact that it is all wrong, and that much precious time has been lost.

In the August number of *Flora and Sylva* the Editor draws attention to this important question of the grouping of trees, and advice so sound as the following bears repetition, and may be well taken to heart by many of the landscape planters of the present day:—

"Of the many questions which the landscape planter has to face that of the forms and grouping of trees is the most important. A knowledge of them is absolutely needed in pleasure grounds, parks, and woods; not only the ordinary plantation or shrubbery of the country, but also in long-established woods. This knowledge is not only essential for good planting, but also from an artistic point of view. Nor must it be confined to one aspect only of even our few native trees. Take the Oak: how mistaken anyone might be as to its planting who knew only one expression of its beauty! The Oaks in the country south of London are quite distinct in aspect from those of Warwickshire. Yet the Oak, set close in a Sussex wood, with many silvery columns rising out of Primroses, is as beautiful as any of the fine Oak growths of the Shakespeare country.

And this is but one example of the variation of habit of one tree, showing the need for the study of trees in Nature, and not in books. If we travel in mountainous lands where Pines abound, we find that they grow close together, that the 'extinguisher' is not their true form, and that they shoot up into handsome stems, often over 100 feet high without a branch. It is a delusion to suppose that there is anything old or right about the common mode of planting conifers, as most of them are recent gains.

"Thinking of all this, how common it is in the first place we go into to see nothing but the muddled mixture of trees and shrubs from all countries and elevations and all characters jumbled together in one plantation, exactly the best thing being done to steal away all character and distinction and even good cultivation; for, eventually, the coarse things destroy the others, and the good and rare things have little or no chance, while the eye cannot see the real beauty of the forms or even colours of things, the common way destroying good colour as well as form. We may see the Wellingtonia planted near a window, and trees planted in conditions in which it is impossible for them to thrive to any good effect; and when we consider the many beautiful hardy trees and shrubs in our islands it is no wonder that men, busy in other ways, should make many mistakes in planting. But on the part of professional planters, so unmeaning a way should not be accepted; and the true one is unattainable without a knowledge of the loveliest gift of Nature to the earth—its trees."

EDITOR'S TABLE.

We invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London.

FLOWERS FROM COUNTY CLARE.

Mr. P. B. O'Kelly, Evergreen, Fern, and Shrub Nursery, Ballyvaughan, County Clare, Ireland, sends a variety of interesting flowers, but, unfortunately, when they reached us they were past their best. Mr. O'Kelly's note, however, is of much interest: "I enclose a bouquet of some choice and very rare flowers too numerous to mention. Enclosed is a leaf of the new *Aralia Moseri*, and amongst other things are *Veronica hybrida semperflorens*, *V. virginica*, *V. brilliantissima*, *Spiraea trifoliata*, and *Astrantia helleborifolia*.

VERBASCUM VIRGATUM

with purple anthers is a very rare and beautiful Mullen, and wholly unknown to the trade. It is the queen of all Verbascons. A well-grown plant will bear 5,000 flowers on its twiggy spikes. *Lychnis ciliata* is another good flower, also the Welsh Poppy, which continues to flower for

months. It is rarely seen in the garden of amateur or cottager, though it should be grown in every garden in the British Isles. The native *Orchis* should not be neglected. *Coronilla varia* is a fine trailing perennial with handsome lilac flowers."

THREE HARDY ORCHISES.

Mr. P. B. O'Kelly also sends three very pretty hardy Orchids, namely, *Orchis pyramidalis*, *Epipactis palustris*, and the fragrant *Gnat Orchis*, which our correspondent writes "should be found in every garden in the British Isles." We quite agree that the hardy Orchises are not too common in gardens—*Orchis latifolia*, for example, one of the noblest of all hardy and native plants.

CYRTANTHUS ODORUS, ANEMONOPSIS MACROPHYLLA.

We receive these from Messrs. De Graaf Brothers, Leiden, Holland. The *Cyrtanthus* is a striking flower. Its strong, chocolate-coloured stem supports an umbel of about a dozen flowers, each 3 inches in length, drooping and tubular, and red with green tips. It is a striking flower. The *Anemonopsis* is a hardy flower we are pleased to see. It is a Japanese plant reminiscent of the Japan Anemone, with shining leaves, and slender stems bearing soft purplish flowers. It is an interesting plant for a shady border. Messrs. De Graaf write: "The *Cyrtanthus* was imported by us from the Cape."

GALEGA PATULA GRANDIFLORA.

Mr. Hartland sends from Ardcarn, Cork, this pretty and rare variety, with blue and white flowers, from plants raised from seed. We hope to illustrate it, and then say more about it.

SOME BEAUTIFUL CARNATIONS.

I am sending for your table a gathering of Carnations from the open border. During the past week we have had torrents of rain, and while many of our border plants have suffered severely, the Carnations are little injured. We often hear it said that Carnations are so disappointing owing to the vicissitudes of the weather. Now this difficulty might easily be overcome by making a judicious selection of those sorts that invariably do well under the most trying circumstances. The following I find most reliable: Yellow Queen, Bracon Gem, La Villette, Uriah Pike, Ketton Rose, and the Redbraes Picotee.—T. B. FIELD, *Ashwellthorpe, Norwich*.

The flowers sent were remarkably fine and not in the least degree split in spite of the deluges of rain. The varieties named are not new, but the colours are pure and bright, and as our correspondent says: "The plants do well under the most trying circumstances." This is a strong recommendation.

FLOWERS FROM TORQUAY.

Mr. H. D. Palmer, Blythwood, St. Mary Church Road, sends many interesting flowers from Torquay with the following instructive note: "After thirty years in the Eastern Counties trying to grow tender shrubs, and succeeding fairly well, my health needed a warmer climate. I came here, and have been making a garden principally to grow shrubs and hardy perennials. I send you a few tender things that I planted two years ago, and

which have been out for two winters unprotected. They are on a south-east and south-west wall. The *Rhynchospermum* is flowering well, though at present small; but it is going up the wall well. The *Swainsonias* are on a south-east wall, and are growing fast and flowering profusely. I have also *Magnolia fuscata* in good health and flowering, but the flowers have fallen, and there are only now buds. *Clematis indivisa lobata* has got to the top of my house (25 feet) in two years, and is bidding fair to cover one side. Last March it was in fine flower. The new *Lonicera Hildebrandti* is on a south-west wall, and has gone up some 15 feet, but has not flowered as yet. What surprised me on coming to Devon is that so few gardens about here have anything in them but the ordinary hardy shrubs, when so many greenhouse shrubs and climbers might be planted with success. *Camellias* have flowered well with me and have made fine new growth. I am not in the hot part of Torquay, but some 350 feet above sea level, and get a good deal of east wind sweeping through my garden, and it seems at the time to be as cold as it was in the East of England. Yet things that I could only keep alive there by special means grow freely here with no protection."

CLEMATIS COCCINEA.

Mr. Max Leichtlin sends some very large blooms of this curious *Clematis*, with the brief and modest remark "*Clematis coccinea* improving." The flowers are not only much larger than any we have seen, but are of very fine colour, a strong rosy scarlet.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

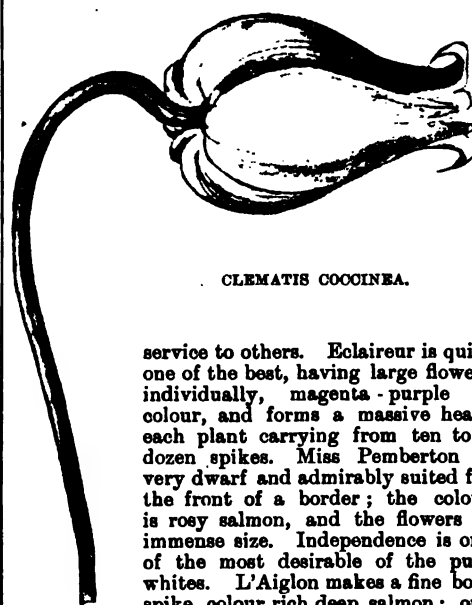
- August 11.—Clay Cross Flower Show; Rye District Flower Show.
- August 12.—Bishop's Stortford and Salisbury Horticultural Shows; East Anglian Horticultural Club Meeting.
- August 13.—Taunton Deane Flower Show.
- August 15.—Crewe Horticultural Exhibition.
- August 18.—Royal Horticultural Society's Committee meet.
- August 19.—Shrewsbury Floral Fête (two days); Eastbourne Flower Show.
- August 20.—Jersey Horticultural Exhibition.
- August 21.—Devon and Exeter Horticultural Show.

Notes from Baden-Baden.—*Indigofera Kirilowii* is a quite hardy dwarf shrub, covered with successive flowers from May to September. The foliage is a very bright green, and the large Grape-like flowers are a bright purplish rose colour. *Agapanthus umbellatus* *Saintpaulii* is a desirable novelty and a very distinct plant; the flowers are somewhat smaller than those of *umbellatus*, but they are very numerous—I counted over 120 in one umbel—and of a quite pure white colour; it is perfectly hardy, but to flower well should be taken up in autumn and kept dry all winter. Another good shrub is *Sorbaria sorbifolia* var. *stellipila*; it differs from the type by its flowers, which are arranged in a very tight panicle, the individual flowers having long hair like filaments, which produce a striking effect. Of *Clematis coccinea* I have by constant selection and constant sowings now produced a fine seedling, the flowers of which are three times as large as those of the wild plant. — MAX LEICHTLIN, *Baden-Baden*.

Nemesia strumosa Suttoni.—There are few interested in the flower garden who do not know this showy and effective annual. It will thrive in almost any soil and position, and will produce flowers so variable in colour that it has gained widespread popularity since its introduction. Not only does it make a grand display in beds and borders, but it does quite as well in pots. Plants from seed sown early in the spring, and pricked off about the middle of April (six to eight seedlings into 5-inch and 6-inch pots), have flowered profusely, making a nice change of flowers in the house.

Like other half-hardy annuals, plenty of air and light are essential to ensure sturdy plants, which are the most desirable. — T. B. F., *Buxted Park Gardens, Uckfield*.

Herbaceous Phloxes at Swanmore Park.—For making bold groups or for interspersing singly among other plants there is no class of hardy flowers more valuable than the herbaceous Phlox, and where a judicious selection is made of the better varieties, and care given in arranging the colours effectively, a very fine display is produced. It has been my good fortune upon more than one occasion, owing to the courtesy of Mr. Molyneux, to see the borders of hardy flowers which he grows so well at the Swanmore Park Farm, and there are few places where a better collection can be seen. The borders, which are about 50 yards long and 12 feet wide, have been so arranged as to make an easy curve, the termination being a very spacious and modern dairy. On either side of a gravel walk broad sweeps of grass give a splendid finish, and at the back climbing Roses are largely grown to form a background and shelter screen at the same time. Many of the herbaceous plants are grown in masses, and by careful discrimination Mr. Molyneux has produced an effect which may be better imagined than described. At the present time Phloxes contribute largely to this, and mention of the best may be of



CLEMATIS COCCINEA.

service to others. *Eclairer* is quite one of the best, having large flowers individually, magenta-purple in colour, and forms a massive head, each plant carrying from ten to a dozen spikes. Miss Pemberton is very dwarf and admirably suited for the front of a border; the colour is rosy salmon, and the flowers of immense size. Independence is one of the most desirable of the pure whites. *L'Aiglon* makes a fine bold spike, colour rich deep salmon; one of the most conspicuous. Mme.

Chauvry makes a fine effect in the mass; it is white, with a well-defined deep red eye. *Simplon* is pale salmon with a rich purple centre. *Goudan*, very distinct rich pink colour, and has a large truss. Jos. Gerbrand has very large flowers, white with a deep red eye. *Pantheon* is a beautiful rosy salmon, and most attractive. *Penge* is a dwarf grower, and an improvement upon *Miss Lingard*; it differs from this variety in having a deep red eye; the head is very compact and well formed. *Epopee* is similar in habit to *Eclairer*, but the colour is several shades paler. In *Cyrano* both spike and single flowers are large; the colour is rosy purple; *Lord Kelvin*, rich salmon-pink. *Roger Marx*, deeper in colour than *Miss Pemberton* and taller. *Etna* and *Coquelicot* are very much alike, but in many soils, especially those of a heavy texture, *Etna* has the better constitution; the colour is a deep orange-scarlet. — A. E. THATCHER, *Elstree*.

Sales of flowers at shows—a suggestion.—It frequently occurs that at the end of a show many of the cut flowers are disposed of. It is quite possible that were the matter brought prominently under their notice by secretaries, &c., exhibitors would gladly devote some of the proceeds to, say, that admirable charity the Gardeners' Orphan Fund; indeed, this would serve as an incentive to purchasers, as a double purpose

would be served, that of personal gratification at having received some trophy of the particular show, and that such outlay would go towards carrying on the truly excellent work of the fund; indeed, this idea is quite capable of some systematic development. Why should not every flower show throughout the kingdom have its recognised stall for the sale of flowers to benefit gardeners' orphans? At such stalls, too, literature (annual reports, &c.), in connexion with the fund could be distributed, thus tending to extend a knowledge of its grand work—much needed to secure an increased accession of subscribers.—Quo.

Roses at East Burnham Park. Quite recently Mr. Harry J. Veitch has made and planted in his charming garden near Burnham Beeches a Rose garden on turf. Here may be seen every good Rose, with strong-growing climbers or climbing and trailing hybrids, especially of the *wichuraiana* race, forming a fragrant border. A particularly free-blooming sort is *humilis rugosa*, the product of crossing those two single-flowered species. The flowers are rosy red in colour, and borne in remarkable profusion. Among the bedders the finest effect was produced by a mass of *Gruss an Teplitz*, a most profuse bloomer, with double flowers of a rich crimson-scarlet. This is undoubtedly a fine bedder. Very pleasing are the trained pyramids in which *Crimson Rambler* and the old white *Noisette Aimée Vibert* are intermixed. We have moved a long way in Rose culture since the days of mop-headed standards.—A. D.

Buddleia variabilis.—In general appearance this bears little resemblance to the best known member of the genus, namely, the Orange Ball Tree (*Buddleia globosa*), which has in many places flowered this year in great profusion. The globular masses of rich orange honey-scented blossoms form a striking feature, and at least in the south of England it is worthy of a place among the most select of flowering shrubs. On the other hand, the blossoms of *B. variabilis* are arranged in an elongated pyramidal-shaped raceme, which from its weight causes the points of the shoots to partially droop. In colour they are as indicated by the specific name, somewhat variable, being usually a pinkish lilac, with an orange throat. This *Buddleia* was introduced from Western China in 1893, and flowers in July and August. It is sometimes cut back during severe winters, but as a rule quickly recovers. Last summer a very fine form shown by Messrs. Veitch, under the name of *B. variabilis* *veitchiana*, was awarded a first-class certificate by the Royal Horticultural Society. Next to *B. globosa* this is certainly the showiest member of the genus, or rather I should have said hardy member, for the Himalayan *B. Colvillei*, which, unless in particularly favoured districts, needs glass protection, is when in flower really gorgeous.—H. P.

Notes from Farnham Royal.—At this time of year something interesting may always be seen at Woodside, where Mr. James grows so many things for seed production. Particularly attractive recently was *Pentstemon heterophyllus*; the flowers are of medium size, and of a light or electric blue colour. The average height of the plant is 10 inches. It comes true from seed, and may also be propagated by cuttings. Although not quite hardy, it should find a place in all mixed borders. A great quantity of double *Petunias* are grown in pots for seed production, but not one of these could compare for beauty and effectiveness, especially as a bedder or for pots or baskets, as a medium-sized single variety. It was one mass of bloom, of a self rosy carmine colour. Were it increased from seed true it should make a singularly popular *Petunia*. The fine strains of *Nemesia* in colours, both in the *Strumosa Suttoni* and the compactum forms, are indeed beautiful, and capital, as coming from seed, are the compact blue *Lobelias*. *Mignonette* is also very fine in pyramidal form.—A. D.

New Director of Agriculture, Bombay.—We are glad to see a new departure in the selection of Directors of Agriculture in India from among men who are acquainted with the subjects pertaining to the department they will be

called upon to control. Such a selection is that of Mr. Frederick Fletcher, son of Mr. Daniel Fletcher, of Unsworth, near Manchester, who has been appointed Director of Agriculture in the Presidency of Bombay on the recommendation of Lord Cromer. Mr. Fletcher was educated at Bury Grammar School, where he gained an entrance scholarship to St. John's College, Cambridge, and also a Lancashire County Council Agricultural Scholarship. For a few years he has been Professor of Agriculture at Ghizeh, near Cairo, and has devoted much attention to the study of diseases of the Cotton plant.—*Indian Planting and Gardening.*

Straight walks in kitchen gardens.—A straight walk in itself is usually an undesirable and uninteresting object in a garden; but in the utilitarian garden, where fruit and vegetables are grown, it is a necessity. And if uninteresting in itself, it is to a resourceful gardener an aid to forming features of interest and beauty. This conversion has been successfully accomplished by Mr. Allen, the head gardener at Hillingdon Court, where what would otherwise have been a narrow, monotonous walk, with vegetables on either side, is bordered by beautiful and sweet-smelling flowers. A wire trellis has been erected on each side of the walk about 5 feet high, leaving a border space on each side for plants that grow 4 feet high. In planting the idea has evidently been conceived and carried out of using chiefly sweet-smelling flowers. Thus we find the trellis on either side planted with Roses and Honeysuckles in great variety—the tree Lupin, Heliotrope, Jessamine, and many other sweet-smelling flowers, all combining to present a beautiful sight to look upon. In the borders also were Roses, Violas, Lilies, Mignonette, Sweet Peas, and a host of other bright and beautiful flowers.—T.

The Tree Lupin.—This shrub was in beautiful flower and most attractive in the gardens of Lord Hillingdon at Hillingdon Court on the occasion of a visit paid a short time ago. Among an excellent collection of hardy trees and shrubs in bloom at the time in this garden none were more interesting than this plant. It stood at the corner of a long walk in the kitchen garden, about 6 feet high, the same in diameter, and presented a rich mass of golden flowers which attracted attention from a long distance. On closer approach we found it to be sweetly scented. The plant had assumed quite a shrub or tree-like appearance. It is of quick and easy growth, as it had attained to this size from seed in some three years. It is hardy in the southern counties, but doubt was expressed as to its standing the winter without protection in the north. The plant grown and flowered as we saw it is a valuable subject for the shrubbery and herbaceous borders in June.—T. E.

Seedling Carnations in July.—I never remember to have seen so many really fine blooms as this season, and such a small percentage of single ones. Although one expects a certain amount, the single varieties this season from Mr. Douglas' strain have not averaged 5 per cent., a good portion are beautiful yellows and selfs, and the flowers are free from splitting, and of splendid texture. For cutting or decorative work seedling Carnations follow the plants grown under glass and bear quantities of flowers; indeed, their greatest fault, if this be a fault, is that they produce too many flowers. They well repay thinning, though I have never practised this, but it would be a gain, as there is an immense strain on the plants in dry seasons if the soil is light. We plant early in August, and give fresh soil if possible, as the land soon tires of Carnations, at least quickly gets infested with its enemies. I am always careful to give the weaker looking seedlings more care, as these usually turn out the best. The soil pays for deep culture and ample food, and the plants never fail if they make a good growth by the late autumn. In our light soil we find it best to add heavy material and to make the seedlings firm at planting time. Mr. Douglas has certainly made great strides with this popular flower, as at the present moment we could select dozens of good show flowers of all shades of colour, and what makes many of them

so much more valuable is their freedom from splitting. Some of the new shades of colour are so distinct that it is difficult to describe them. To show, however, the great variety of colours and shades I have sent the editor a few gathered at random from a quarter containing 1,000 plants put out the last week in July, 1902. Single varieties are sometimes objected to, but in my own case I have found them most useful for room decoration. The colours are kept separate, and when *Gypsophila elegans* is mixed with them they are much liked on the dinner table. They have also other advantages, as the seedling Carnations give so much more "grass" than the doubles, and the foliage is useful for mixing with named sorts. There are few cut flowers that last so well in hot rooms as the Carnations, and this should not be lost sight of. I consider them invaluable to those who require plenty of choice flowers in July and August, and grown from seed sown early the previous year they give so much cutting material, and for bedding should not be overlooked, as few herbaceous plants give more pleasure, and the great diversity of colour always makes them interesting.—G. WITHER.

KENTISH FLOWER SHOWS.

STRANGE though it may seem, the fair gardening county of Kent cannot boast of a single great flower show. Though it enjoys a favourable climate, is famous for its fruit, and is studded with pretentious garden establishments, no horticultural exhibition is held within the borders of the Hop county that can compare in size and excellence with those which annually take place at Hanley, York, Shrewsbury, and elsewhere. Close proximity to the Metropolis may account for this, or, perhaps, lack of interest, but the fact nevertheless remains, and though attempts have been made to establish good shows in various towns, they seem to end in financial failure.

But if Kent is behindhand in the way of large shows, it is to the front with small ones, for, though I have no statistics to prove it, I do not hesitate to say that the Hop county is ahead of all others in the way of village flower shows, and a word about them does not seem out of place in a journal that lives for the encouragement of horticulture in all its branches.

Kent is not a county of coal mines, iron-works, or great manufacturing industries that cause huge towns to spring up like Mushrooms, but it is a land of old-world villages, and steeped in history and folklore, but comfortable-looking and picturesque, and in these little communities horticulture lives and prospers. From the middle of July to the end of the following month scores of country villages hold their annual shows, which receive no publicity beyond a paragraph in the local newspaper, but where the horticultural enthusiasts of the community compete with each other in friendly contest, and display an enthusiasm that never seems to wane as the years roll by. It has been suggested that there are too many shows in the county, all crowded within the space of a few weeks, and that if a number of villages grouped and held a central exhibition it would be better, but our Kentish villager does not see this. He is too jealous of his society and his show to hand it over to someone else, and prefers to keep it, as something belonging to himself, in his own place, and therefore on the same day every year the marquee appears in the corner of the same field, and the same competitors fight the old friendly battle over again.

It speaks volumes for the quiet horticultural

spirit that moves amongst the workers in the county to visit a Kentish village on flower show day. It is characteristic of the people that they do not go into raptures of excitement, for they take their pleasures quietly, almost methodically, yet the flower show is a red-letter day of the year, and the villagers support it loyally by their presence. And the spread of village horticulture has been the means of unearthing horticultural talent of no commonplace order, and almost every society has its champions, who are leading lights of the local gardening fraternity, and prove by the way they manage their gardens and allotments and the excellent produce they stage at the annual show that they are gardeners of Nature's own making, in spite of the fact that scores of them possess hands made horny with hard labour, wear corduroys, and never earn more than 18s. a week in their lives. Few of the village societies can boast of much wealth, many of them have a struggle to keep going, and some are practically self-supporting. In many cases the payment of prizes is dependent on the gate, and I could give instances in which the disaster of a wet day has brought financial failure, and the exhibitors got nothing for their trouble, but it did not dishearten them. To let the society go under is a thing that rarely happens, and the next year the show was held as if nothing in the shape of a disaster had taken place.

A commendable feature about the typical Kentish gardening society is that it is a society in something more than name. It does not consist of an annual show and nothing more till the next season, but throughout the year periodical meetings are held, fortnightly or monthly, at which the members exhibit produce in season, and points are awarded, which represent a certain monetary value at the end of the year, dependent on the funds of the society. You may talk of the gardening spirit which fires this or that individual who makes his mark in horticulture, but it is displayed just as clearly in the Kentish farm labourer, who will drive a plough all day long and in the evening contentedly trudge two or three miles, with a heavy bundle of vegetables on his back and a favourite window plant under his arm, to attend the gardeners' meeting held in the club-room of the village inn.

Naturally vegetables occupy the leading place at the village show, and the splendid produce staged by cottagers affords evidence of the fact that sound practice and honest work play a greater part than mere theory in successful horticulture. Thanks largely to the efforts of influential persons who interest themselves in village gardening, a considerable interest has been awakened in flowers of late years, and, though our cottager has a good deal to learn yet in the art of decorative display, he proves himself to be a cultivator as well as a true lover of flowers, as is proved by the brightness of window and flower gardens, which any traveller through this fair county may see for himself, if he does not follow the latest craze and rush through it on a motor-car at 25 miles an hour.

If I were asked what gardening societies and local shows have done for village horticulture in the county, I should answer by inviting the questioner to walk through the cottage gardens or group of allotments in a village possessing a society and holding an annual show. He would not necessarily have to be an expert gardener to pick out the plots belonging to the society members, and the general condition of the crops would convince him. Further, the spirit of competition instituted by local societies has led to a greater interest being

taken in varieties, and if the local exhibitor sees something that strikes him as being good, he generally succeeds in getting it, though this may mean a sacrifice in some other direction.

Further, I have reason to know that good cottage gardeners are also good workmen, who are eagerly sought after in these days of scarce and inferior labour, and are respected alike by their employers and the village community at large. If for no other reason than this, village gardening should be encouraged, for the practice of horticulture tends to bring the best side of a man to the front, and develops those sterling qualities which go to make British working men the backbone of the country.

Finally, it is only fair to say that the Education Committee of the Kent County Council has done and is still doing an excellent work in encouraging and improving gardening in rural villages. Lectures are given through the winter, and in the summer competitions are held and prizes awarded for the best cultivated plots. That these privileges are appreciated by members of local gardening societies and others is proved by the keenness displayed by competitors to obtain the requisite points to ensure the winning of a County Council prize. There is a double advantage, for the plot that secures an award cannot fail to be profitable to the cultivator through the varied amount of produce he obtains from it. G. H. H.

THE TULIPAS.

(Continued from page 77.)

T. retroflexa (Hort.) is a well known and valued Tulip of garden origin, fully 2 feet high, with slender, rather lax stems and much-pointed, reflexing, canary-yellow flowers, which are undulating on expansion. The basal colouring is a slightly darker stain. One of the best border Tulips, elegant and graceful always, and really valuable for all kinds of floral decoration. It requires the best cultivation possible, as its constitution is not so strong as many; but with quite three months' ripening in an airy shed, and a semi-shaded site in which to grow, it cannot fail to thrive. It should be isolated from new introductions, especially those obtained from Southern Europe, for it is very susceptible to fungoid diseases hailing from the South.

T. saxatilis (Sieber), a charming, free-flowering species, with broad, glossy green leaves, which make their growth throughout the winter. The flowers are borne on branched stems, generally in threes, and they are coloured a pleasing shade of rosy pink, with a well defined clear yellow base. The flowers have the pretty shade of *Lilium rubellum*; they span 4 inches across, and are produced quite early in the year. The plant comes from Crete, and it is quite hardy here, though its leaves are often disfigured by wintry storms. It likes a root-run of *detritus* of rock on a warm rockery slope or warm border, and its bulbs are of that brick-red coloured type that invariably need a good summer's baking to ripen thoroughly.

T. Sprengeri.—A very late-flowering plant with the habit of *T. sylvestris*. The flowers are cone-shaped, much pointed, coloured bright scarlet, flushed with grey externally, and the basal colouring is dark brown or black. The flowers span 5 inches, and open during bright sunshine only. Generally the last to flower. Treatment of *T. Hageri* var. *nitens*.

T. stellata.—A charming little plant from Kashmir, which much resembles the European *T. clusiana* in form and habit. It is a miniature species with slender leaves and Buttercup-

yellow flowers, the petals of which are boat-shaped, pointed, each 1½ inches long, flushed on the outside with rosy carmine. It expands fully during bright sunshine, and it is then very pretty indeed, the flowers being distinctly star-like—a feature that suggested its name. It has no basal colouring whatever, and the petals glisten as though highly polished. It flowers in April. Treatment of *T. clusiana*.

T. stragulata (Reboul).—A European plant of gesneriana type, the flowers of which are cone-shaped, 2½ inches long, coloured a beautiful chrome yellow, pale primrose near the margins, and flushed with rose externally. The base is coloured black.

Var. *primulina* has a sulphur-coloured flower.

Var. *picta* is a rich yellow-coloured form spangled with rose externally, and flushed with orange red near the mid-rib. Capital garden plants, but little grown, yet worth every care. Their colouring is choice and delicate, their shape pleasing, and their garden value great. Quite ordinary treatment suits them.

T. suaveolens (Roth).—A lovely Tulip, and a rarity from the Crimea. Flowers scarlet, of exceptional richness, and very fragrant, resembling the new *T. præstans* from Bokhara very closely, in so much that I think it possible to find a close relationship between them. *T. suaveolens* appears to differ from that plant in its darker scarlet colouring, in being mainly one-flowered and in its richer fragrance. The leafage of the two plants is identical. April; treatment of *T. præstans*.

T. sylvestris (L.) is a charming native species widely spread throughout Europe, generally found in association with woodland and scrub, but quite as well adapted for border cultivation as for specialised shady sites. It has small bulbs, channelled, erect leaves, and nodding stems. The flowers are cone-shaped, much pointed, coloured a clear yellow, and flushed with green externally. They average 3 inches in diameter. The bulbs are stoloniferous, and in many cases where the plant is successfully naturalised it fails to flower well mainly because it forms too dense a patch to enable individual bulbs to develop strength. There are numbers of geographical forms, mainly better as garden plants than the type, the flowers being larger, and their robust strength is a factor in establishing their garden worth.

Var. *florientina* is a giant form, with large flowers, 6 inches in diameter, very fragrant, and a good garden plant. One of the best Tulips for free and unrestrained use in semi-wild gardens. It grows fully 2 feet high in a good soil.

Var. *italica* has shorter, more rigid stems, about 1 foot high, and the flowers of *florientina*.

Var. *fragrans* is the Algerian form, a great Rambler and markedly fragrant. It is often called *odorata*, a name employed loosely for all the forms of *T. sylvestris*. *T. sylvestris* and its varieties seem peculiarly fitted to hold their own with other plants in a semi-wild state. Their stoloniferous bulbs assure for the plant a fresh site every year without the aid of the planter, and, provided they do not become too crowded and starved, they will take care of themselves in all but the strongest grass land. Moreover, in establishing *T. sylvestris* in woodland one is not offending the laws of Nature, merely returning a woodland plant to its native and best environment.

T. triphylla (Regel) is a variable Turkestan species, the leaves of which are small, channelled, ascending, the bulbs small, the stems under a foot high, and the flowers are shaped like those of *T. kolpakowskyana*, petals broad and pointed, reflexing on expansion, of pretty

shape when closed, coloured an orange or lemon yellow with no basal marking; the exterior is flushed with olive green or bronze. It is a very pretty plant, charming in its colour variations, its neat habit and pointed buds. The flowers span quite 4 inches, and they are as showy as they are choice. It requires a rockery on which to grow, and, like all its fellow countrymen, needs a good ripening season. April.

T. undulatifolia (Boissier).—An Asia Minor species of small stature, with slender undulating leaves and stems; flowers bright purple-red, cone-shaped, greyish externally, the petals of which are thin and much pointed, the inner broadest, and keeled with grey. The basal colouring is a large black disc. Culture as for the last species. April.

T. violacea (Boissier and Buhse) is a Persian plant closely allied to *T. Lownei* and *T. pulchella*. Leaves slender, stems lax and nodding, 4 inches to 6 inches high. Flowers reddish purple or dull carmine, the petals of which are narrow and boat-shaped, flushed grey externally, and coloured rich blue inside near the base. Culture as for *T. clusiana*. April.

T. viridiflora (Hort.) is a Tulip of garden origin, admired by one half the world and detested by the other half. It grows a foot high, stems rigid, flowers olive green, tinted yellow near the margins, and flushed greyish externally. The petal tips are much pointed, and their margins are always undulating and often deeply cut. As a garden plant it is inferior to its variety *præcox*, but its semi-wild aspect and singular colouring will, doubtless, continue to please. Very easy to grow. May.

Var. *præcox* is a taller plant, seen at its best in the latter part of April. The petals are very broad near the tips, undulating, reflexing, coloured emerald green, shading to a paler margin when it first opens, but changing to a pale silvery cream tint with age. There is no basal blotch. The surfaces of the petals are very lustrous. The flower is well shaped and the best of its group. Despite the ease with which it may be grown it is becoming scarcer every year, owing to the excess of demand over supply. One can describe it as a pretty and very interesting plant, the colours of which are refined, and the petals are remarkable for their good finish.

Var. *tardiva* is a late flowering form of the type, coloured a dull, uninteresting green. Of little garden value, and quite unornamental. It is grown only as a curiosity.

T. vitellina (Hortus) represents the highest standard of excellence found in old-time Tulips. It grows 18 inches high. The flowers are elegantly shaped, quite 6 inches across, the petals of which are pointed and reflexing, the inner rounded and longest. Colour, a delightful shade of chrome, flushed with olive externally, showing a distinct olive shade throughout when the flowers first open, but changing to a pale chrome yellow with age. There is no basal marking whatever. A lovely Tulip, and deservedly popular. A slightly shaded site brings out its best qualities. May.

T. wilsoniana is a new species from the East, 8 inches high as an average, the leaves of which are slender, the flowers brilliant blood-red, 2 inches to 3 inches long, cone-shaped, without any basal colouring whatever. It is a choice little plant, requiring a very warm position on a rockery as its hardihood is not a matter of certainty. April.

There are several other species recorded by botanists purposely omitted here, either on account of extreme cultural disability or because they are quite unknown to horticulture. Many garden varieties also bearing

popular or vernacular names, though obviously varieties of species herein included, are better and more rightly included in the following essay on "Garden Tulips."

(To be continued.)

NOTES FROM SWANSWICK.

SHRUBBY VERONICAS

It is a thousand pities that these are not hardy everywhere, for they really possess every possible advantage as decorative garden shrubs. They grow more or less quickly—some of the most beautiful very quickly indeed—they are evergreen, they have beautiful glossy leaves, and, lastly, most

about here, is much sold in pots for window boxes, &c., and may be seen outside greengrocers' shops in quantity, is much less attractive in flower than the rest I have, but is useful, because it grows so neatly, always making a round bush that develops equally all over. It appears perfectly hardy, and will accept anything offered in the way of soil, and when covered all over, in July, with its small white flowers, is pretty, if not exceedingly showy. It might very well be planted where one now sees those low Privet hedges, of surpassing ugliness and lack of interest, that people put along the tops of retaining walls, &c., in their town front gardens. Of the small non-shrubby Veronicas, I think *V. saxatilis* is of the prettiest. Its blossoms, which are large and solitary, studded along the tufted stems, are of a true gentian blue, shaded in the centre with violet, and make a delicious bit of

names; a very bright violet-blue one, creeping, and a most encroaching spreader, is, I think, *V. Teuorium*, a lovely mass of colour, and like a weed for ready growth in any position. *V. verbenacea*, a very neat little plant of the smallest dimensions, is the latest acquisition, but has not yet flowered, while the handsome *V. amethystina* is doing well on a rather arid hot bank, where the only other perfectly happy plant is *Plumbago Larpentæ*. *Malvastrum Gilliesii* has just flowered for the first time here. The blossom, about an inch across, and shaped like an *Erodium* flower, is deep pink, with a black centre, decidedly pretty. At present the plant, growing on a sunny (and extremely hot) bank, with its roots packed away from all possibility of heat or drought between horizontal stones, is small, but it seems healthy and increasing. It is quite a dwarf, and apparently fit only for the



PERGOLA IN A FLOODED GARDEN IN JUNE.

ornamental flowers of every shade—from deep blue-purple to pale lilac, and from red-crimson to flesh pink. Of all the red varieties I have, or have seen, T. Smith's Diamant is the finest, both in colour and massive size, of the large crimson spike—*real* crimson, not the dark violet of florists—but this is, with me, one of the slower growers. Its leaves are wide and substantial, and, truth to tell, a trifle more tender in frost than some, but it is a glorious thing. I have about ten varieties, including a very pretty one, with a spike shaded from deep to pale rosy pink, and an exact counterpart to it in blue; these, with one that has a spike where each individual flower, of a very bright lilac-blue, is large, solid, and open, thus giving a quite different effect to the more feathery one of the small clustered blooms, were gifts from that splendid garden at Dawlish where the Veronicas grow into giants, and have an ideal home. *Veronica Traversii*, which,

jewel colour on the sunny rockery. It is very neat and dwarf, a solid little plant that increases steadily by throwing out roots on the under side of the stems, but is not at all rampant. It likes a top-dressing after flowering, and seems to do well almost anywhere. Of *Veronica spicata* I am less fond. It is pretty in the mass, but each thin spike, with its tiny flowerets, is individually so poor. However, as it is supposed to be miffy in some gardens, it is sure to be a favourite on that account, since growing it well does the grower some credit. *Veronica pectinata rosea*, lately sent as a gift from the North of England, is doing extremely well, and is interesting from its unlikeness to other members of the family. It has whitish or silvery tomentose leaves, is quite prostrate and creeping, and has pretty, small, solitary, rosy-pink flowers. There are also in the borders and on edgings two or three others of which I have not the right

choice rockery, where nothing will rampage and choke it. *Cyananthus lobatus* is doing well close by under the same conditions, but, of course, will not flower just yet.

(To be continued.)

THE FLOWER GARDEN.

A GARDEN IN FLOOD-TIME.

SEND the enclosed photographs thinking that perhaps the readers of THE GARDEN might be interested to see how picturesque a "Garden by the Waterside" may look even under very adverse conditions. The flood last June was quite unprecedented in the Thames Valley, and distressing in many ways; but there was so

much of beauty in the reflected colours of the flowers, so many brilliant effects of sun and shade among the trees, that one came almost to wish it permanently in very truth "A Water Garden." How the Roses have flourished since! Never has Papa Gontier held up on sturdy stem such wealth of perfect buds, never has Mme. Lambard given so generous a display of tender pink and yellow flowers, but alas! there has been sad havoc among the Iris germanica, Oriental Poppies, Dianthus, and other perennials, so much havoc, indeed, has led the gardener to class June floods among "all the other things which we has to content with."

Bourne End.

C. C. B.

DODECATHEONS.

(AMERICAN COWSLIPS.)

THE Dodecatheons, American Cowslips, or Shooting Stars, as they are variously called, are singular looking, but very interesting garden plants that anyone can grow. There are about eight species, and numerous geographical forms that do not materially differ in size, shape, form, or colouring, being mere gradations of white, lilac, rose, and crimson. They are natives of California, Oregon, and Western America generally, and though they inhabit a large

like those of all the Primulaceæ, are slow to germinate, or by offsets, which are freely produced by removing entire roots in early spring, pulled clean from the root disc. These have small buds at the junction with the crown, and if stratified in damp sand in some shady corner and kept well watered they make quite respectable plants within a year of severance and will flower in the second growing season. April, May, and June are the flowering months, beginning with *Hendersoni* and *Clevelandi*, and ending with forms of *Meadia*. Slugs do some mischief by eating the tips as they start into growth, but a handful of sharp sand placed over each crown as it emerges will effectually prevent this. Hybrid forms of *D. Meadia* now available for general planting are great improvements on existing species, and their usefulness is so great that one hopes for still better things to come, in which the yellow shades of the small *D. patulum* may be employed to give colour variation.

D. Clevelandi (Greene), a native of California, is a slender-growing plant; the leaves are narrowly ovate, in a lax rosette of ten, and the stems are purplish, under a foot high and bear from six to twelve flowers in various shades of pink; the petals are three-quarters of an inch long and slightly twisted, as in Cyclamen, marked with a ring of crimson-maroon around the anthers. White forms are

and with thirty to forty flowers in the umbel.

D. Hendersoni (Asa Gray) is an Oregon species of slender habit; the leaves are broadly lanceolate and arranged in a lax rosette. The stems are purplish, 8 inches to 12 inches high, and bear a dozen deep rosy-tinted flowers of pretty shape, tinted paler at the petal tips, and zoned with white, yellow, and mahogany concentric rings around the bunch of anthers. A pretty species and one of the earliest to flower. It reaches its best stage in a damp, cool spring, and it requires protection from drying winds, the leaves being of thin texture and seemingly incapable of withstanding drought.

D. Jeffreyi (Moore) = *D. Meadia* var. *lanceifolium* (Asa Gray) is a vigorous plant, and, as already mentioned, is suitable for waterside and marshy places. The leaves are long, arranged in a dense rosette of twenty or more, often nearly 2 feet across. The stems are strong, purplish, above a foot high, and bear six to ten flowers on long pendent pedicels. The petals are very stout, rosy-pink marked white at the base, and with a yellow ring at the throat. It will grow in any good garden soil, but is at its best by the waterside. There it makes a thick mat of roots, stout leaves, and many stems 2 feet high, bearing large and singularly graceful flowers, but the umbel never has the imposing appearance of the *Meadia* forms, as but few flowers are produced at a time.

D. Meadia (L.) is an old garden plant, and the one commonly found in American pastures. It has ovate leaves in a lax rosette, and greenish stems, which support a close umbel of six to twenty pale rosy lilac flowers. The petals are three-quarters of an inch long, white at the base, and zoned with carmine to form a ring around the yellow, carmine-tipped anthers. As a garden plant it grows 1 foot to 2 feet high, but it is very variable as regards size, ranging from high mountain forms a few inches high to stately plants 2 feet high from marshy plains, and these mountain forms do not reach the stature of the low-level plants under cultivation.

Var. album is the white form of the type. It is comparatively slender in growth, but it flowers freely.

Var. elegans is a pretty plant, with slender stems 1 foot high, bearing rosy-lilac flowers "shot" with tints of violet. The plants make rapid increase, as the roots are naturally brittle, and the slightest disturbance of the crown during winter severs every one, and each forms an independent plant. It is on this account that old-established plants are rarely seen, the plant being generally represented as a colony of youngsters, and if one wishes to separate such colonies it is necessary that the site should be dried by placing a light over it till the roots are slightly withered. They are then more pliant, and can be separated without becoming detached from the plants.

Var. splendens is a form of the latter with deep crimson flowers. I do not know if it is found as a wildling, but seedlings of *elegans* often resemble *splendens* and *vice versa*. *D. integrifolia* (Hort.), with deep crimson flowers, cannot be differentiated from this plant. All three lose their roots wholesale when disturbed unless prevented by drying somewhat as described.

D. patulum.—A Californian plant, is very interesting, and lemon-yellow in colour. It grows 6 inches high, has lanceolate leaves in a lax rosette 8 inches across, and bears six flowers on each stem. It should be grown



A THAMES GARDEN FLOODED IN JUNY. (Note the water by margin of mixed border.)

area and undergo varied conditions of climate in a wild state, all may be grown side by side in any damp, cool situation. They prefer a root-run of peat, leaf-soil, and sand, and, where available in quantity, the gritty sweepings of country roadsides, stacked to kill weeds and their seeds, will form capital rooting material without further addition.

The site selected should be slightly shaded, but such places as the foot of a rock garden where Ferns will grow suits them well. *D. Jeffreyi* is a capital marsh plant. It is vigorous, and so cheap that it may be planted in quantity among Primulas and similar plants by waterside, and if given plenty of room to increase it will naturalise itself in such places.

Propagation may be effected by seeds, which,

often found in a wild state, and their stature is generally smaller than that of the type. *D. Clevelandi* as cultivated in England is a poor plant compared with specimens found growing wild in California. Our climate is probably too varied for its well being.

D. ellipticum (Nutt) = *D. brevifolium* (Asa Gray) is another Californian plant, the leaves of which are as broad as those of Violets, arranged in a dense rosette of twenty or more. The stems are often 2 feet high, and bear a large umbel of pale lilac flowers, which, on account of the short pedicels, appear too closely packed together. They resemble those of *D. Meadia* closely, and are similarly marked at the base. A sturdy plant of vigorous growth, often 12 inches across the rosette of leaves,

with the cooler alpine, and would succeed better in a roomy pan in the alpine house than among stronger plants in the border. Numerous forms are known, of which *alba*, white, with yellow ring, and *Beauty*, its pink-tinted form, are good.

HYBRID DODECATHEONS.

These are a distinct gain. They are vigorous, and have broad, firm petals, while the lilac tint that mars the colouring of many species is absent. A few that have been brought under my notice have not been real breaks, and these are omitted from the appended selection.

D. Clarinde has lanceolate leaves and slender stems, bearing umbels of forty flowers 1 inch long, coloured white, tinted pink at the tips, and stained at the base as in *D. Meadia*. The pedicels are long, giving the umbel a loose and elegant shape, while the petals have the half-twist characteristic of *Cyclamen persicum*.

D. Gladstone.—Stems and leaves as in *Clarinde*. Flowers white, three-quarters of an inch long, petals as broad as they are long, overlapping, crimped at the free tips, and tinted purple. There are forty flowers to the umbel.

D. La Grandesse.—Leaves broadly lanceolate, very strong; stems 18 inches high, bearing an umbel of thirty flowers, the petals of which are white, flaked and slightly tinted pink at the tips. Size and shape of *D. Meadia*.

D. Mme. Blanche.—A very vigorous plant and a real triumph of the hybridist's art. Leaves and stems as in *Jeffreyi*, but larger. Flowers fifty to the umbel, borne on long pedicels, coloured pure white, the petals of which are very thick, wedge-shaped, above an inch long and three-quarters of an inch broad at the tips. A very free-flowering plant of easy culture, and the best *Dodecatheon* I have seen.

D. Rose Queen.—Strong plant, 1 foot high. Leaves broadly lanceolate, short. Flowers thirty to the umbel, soft rosy tinted, the petals of which are twisted as in *Cyclamen persicum*, showing the paler coloured reverse.

D. Vondel.—A very strong, richly-coloured, many-flowered *D. Meadia*; petals slightly twisted, showing a flesh pink reverse, and with crimped margins.

The above list must not be accepted as complete, for there may be others equally good that I have not seen, or which are not available in sufficient quantity to warrant notice.

GEO. B. MALLETT.

STREPTOCARPUSES IN THE FLOWER GARDEN.

LAST year, anxious to provide for the welfare of some ordinary pale grey *Streptocarpus*, the result of a much-praised packet of seeds which had as seedlings all assumed this pallid, modest hue where various brilliant flowers had been expected, it was suggested that before throwing the plants away they should be tried in the flower garden. In default of testimony to their hardiness only a few were made pioneers in this (here at least) new departure. The result was satisfactory in every case where the plants enjoyed half shade and moisture at the roots. When autumn came these, with other half-hardy bedding plants, were potted up and wintered in a cool greenhouse. This year the whole batch of these grey *Streptocarpus* have been transferred to the borders since the beginning of June, and have attracted much notice by their soft and vigorous foliage and long, *Gloxinia*-like blossom. They would be charming as edging to beds of brilliant *Fuchsias* or bright-flowered *Abutilons*; indeed, the Cape Primrose is worthy of a border to itself, and would be no doubt more effective should the brighter-tinted hybrid *Streptocarpus* of more recent introduction prove as hardy as their congeners.

SUFFOLKIAN.

TREES AND SHRUBS.

THE NEW ABIES CONCOLOR ARGENTEA.

I HAVE pleasure in sending you a branch of the new *Abies concolor argentea* (Wattez), which was sent out a few years ago. It did not meet with the general approval which such a first-class novelty deserves, most likely because it is not often seen at its best, also its hardiness is suspected, and it is difficult to grow into nice well shaped plants. As to its hardiness it has stood here, only sheltered from the severe wind, unprotected, without suffering in a frost of 34° Fahr. The way to propagate it is by grafting on the Silver Fir, and it takes some years to get a good plant; still, it is far more easily grown than concolor violacea, for it is astonishing the number of leaders on one plant. The colour is pure golden in May, this turning to a beautiful silver as the shoots mature; the colour is quite new amongst *Abies*, and I am confident when better known that it will be a rival to *Picea pungens glauca* in not too rough and exposed positions.—A. M. C. VAN DER ELST (Manager of the Tottenham Nurseries, Limited), *Dedemsvaart, Netherlands*.

[This is a most interesting and distinct *Abies*. Where conifers thrive, the typical *A. concolor* and its well known variety *violacea* make exceptionally handsome trees, and as the new variety appears to grow well it should do the same. At Kew a specimen of this variety has been in cultivation for about two years. It is now about 4½ feet high, and is of fairly symmetrical habit. The leaves are from 1 inch to 1½ inches long, and hardly so wide as those of the type. In colour they are of a yellow shade when first developed, changing to a silvery hue with age. Along the centre of the leaves on the upper side a pale green mark is to be seen, while on the under surface the same mark is to be found, but of a much deeper green. The colouring of the leaves gives the plant a delicate appearance, and this has caused some people to doubt its hardiness. Mr. A. M. C. van der Elst, however, vouches for its hardiness, and says that it has stood 34° Fahr. of frost without injury in their nurseries, the plants having a position sheltered from cold winds. In places where conifers do not thrive well it would be folly to plant this novelty, but in gardens where conifers are a success it should find a place.—ED.]

SPIRÆA LINDLEYANA.

THE beauty of this plant has been alluded to so many times in THE GARDEN that it seems almost unnecessary to refer to it again. The attention of intending planters, however, cannot be too strongly directed to it, as during the latter part of July and most of August it forms one of the prettiest shrubs in flower at that time. It is a great mistake to put single plants of it in a shrubbery, as I have often seen it, where it is either smothered up with other things or starved in the shade of big trees. Its proper place is on a bank by the side of water, where, if planted in a large clump, it forms a pleasing sight when covered with its large, terminal panicles of pure white flowers. Full exposure to the sun, and a light, but not too dry, soil result in vigorous, healthy plants 8 feet to 10 feet high, which require little attention when they are once established. A thinning out of the weakly shoots during spring or early summer is beneficial, as it increases the vigour of the remainder,

and lets light and air to the centre of the plant. *S. lindleyana* is worth growing for the sake of its foliage alone, the leaves being pinnate, and consisting of about eighteen to twenty narrow, deeply serrated leaflets of a pleasing soft green colour. It is easily propagated by the suckers it throws up. These can be detached in the winter with a portion of root, cut down to half their length, and planted. In two years they will attain flowering size.

HYDRANGEA PANICULATA GRANDIFLORA.

THIS well repays close attention, as when well grown it bears immense panicles of flowers upwards of 18 inches in length, and of a fine pyramidal shape. To grow it well the plants should be cut



ROSA SINICA IN THE GARDEN OF THE HOTEL CALIFORNIE, CANNES.

back to within two or three eyes of the old wood each spring, and the resulting shoots thinned out to from two to six, according to the size of the plants. Those that are left should be tied to stakes as they grow, and when the flower-buds appear the plants should have one or two soakings with liquid manure, and a mulching at the same time is also beneficial. The showiest of the flowers are the flat, sterile ones, the fertile blooms being small and insignificant, and are to be found half hidden by the others. The spikes last for a considerable time at their best, and then gradually go off with a pinkish tinge before finally dying. This plant is sometimes grown as a standard by training a single stem to the desired height, but this form of growth is not suitable, as the flower-stems are too heavy to stand erect without support, especially during heavy rains.

Bagshot, Surrey.

J. CLARK.

ROSA SINICA.

THE accompanying illustration, reproduced from a photograph kindly sent by the Rev. A. Carter, Thrussington Vicarage, Leicester,

represents a plant growing in the garden of the Hotel Californie at Cannes. It is interesting because it shows how well this Rose succeeds in the South of France, where also that lovely hybrid *R. sinica* Anemone flowers with a freedom unknown in these isles. Few single Roses are more beautiful than Anemone with its large, tender, rose flowers and bunch of yellow stamens.

NOTES ON HARDY PLANTS.

THE JAPANESE IRIS.

I. LEVIGATA (KEMPFER).

AS there seems to be some doubt regarding the proper way of growing these magnificent Irises, our experience here may be of use to other Midland county gardeners. We started with three lots from English nurserymen and planted them (1) by the riverside; (2) 15 feet from the river in a border made for them; (3) in the herbaceous border in the garden. The soil is heavy clayey loam. No. 1 flowered the first season and died during the following floods; No. 2 have never flowered and are dying; No. 3 flowered the first year well, the second year badly, and the third year not at all. They look healthy.

Last year we bought some and planted them in rich black kitchen garden loam in a bed 12 feet wide, under a wall sheltering them from the sun after twelve o'clock. They flowered well the first year. During the winter they were mulched with fibrous turves, and on coming into flower this year they were well watered every day with manure water. They have flowered really well, and have produced flowers 7½ inches across. We tried manuring another lot in winter with rich farmyard manure as they do in Japan. Those plants died. Ours here were very nearly as fine this year (though not quite) as the Newstead Abbey beds which I saw last year. They are planted by the hundred in a meadow in ridges like Potatoes, kept as dry as possible during the winter, and irrigated by turning a stream on to them during the summer. That is the proper way of growing them.

Wychnor.

BASIL LEVETT.

CAMPANULA PYRAMIDALIS FROM SELF-SOWN SEED.

THE illustration shows a plant of this noble Bellflower from a self-sown seed in a chink of a rough wall. This will interest those who only know the plant in the border or in a pot in the greenhouse. It is a wall plant of great beauty, and, as our illustration shows, succeeds as well there as in a border.

ROUND ABOUT A GARDEN.

FLOWERS FOR BUTTERFLIES.

I SYMPATHISE with the motive which no doubt actuated the question of a correspondent as to which of our late summer flowers are most attractive to Red Admiral butterflies. I doubt whether any flower can be as beautiful as this gorgeous creature, with its broad wings of black velvet splashed with white and barred with scarlet. Equally

splendid, and in some gardens more common than the Red Admiral, is the Peacock, with damask wings, each carrying in its corner an eye of many wondrous hues. Then there is the large Tortoiseshell, as grand a

black, and its delicate marginal embroidery of brightest blue.

USEFUL AND BEAUTIFUL.

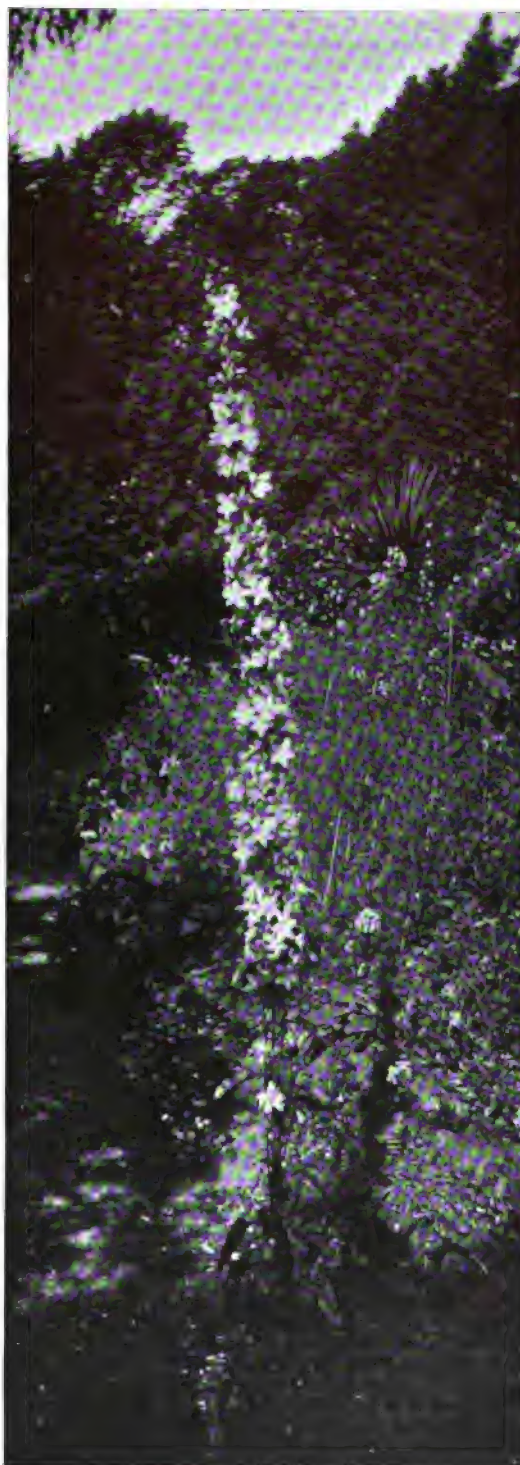
It so happens, moreover, that three of these four winged jewels feed in the caterpillar stage upon the common Nettle; so that by encouraging them you are conferring a benefit on the vicinity. Indeed, with the exception of the "cabbage white" pests of the kitchen garden, it may be said of British butterflies in general that none of them does any appreciable harm in a garden or anywhere else; while, besides the Red Admiral, Peacock, and small Tortoiseshell, which help to keep down the Nettles, another very beautiful butterfly, the Painted Lady—unfairly so named, seeing that its colouring owes its charm to very modest harmonies of pinks, and greys, and buffs, relieved at the corner tips with a contrast of black and white—is also useful from the war which its caterpillars wage upon Thistles.

WINGED GEMS AND RARITIES.

There are many other pretty butterflies, too, coppers and blues, brimstones and orangetips, tawny fritillaries—leopard-spotted and tiger-striped above and spangled with silver below—commas with curiously jagged outlines, and delicately pencilled hairstreaks, which will all come in their seasons to a wisely-planted "butterfly corner" in any well-placed garden. In some districts a garden may even tempt that grandest of British butterflies, the Swallowtail, from its home in neighbouring Fenland; and it is especially in gardens that are haunted by Red Admirals in autumn that you may have a chance of watching that splendid rarity, the Camberwell Beauty, sunning its great wings of crimson-damask, margined wide with creamy white and embroidered with blue, upon some cluster of attractive blooms. As, moreover, these flower-haunting butterflies have strong homing instincts and return to the same feeding places day after day, it would not be impossible with good luck, to retain your rare guest about the place until the time should come for it to seek winter quarters. Perhaps even in spring it might reappear with the faded Peacocks and tattered Red Admirals that sun their old wings on the gravel paths and sunlit walls, and establish from its eggs a local race of this extremely rare and handsome butterfly.

CURIOUS TASTES.

One needs not, however, to meet with such remarkable results from the establishment of a "butterfly corner" in one's garden to gain from it more than enough pleasure to compensate for the trouble and the small loss of garden beauty that the scheme entails. The latter is inevitable, for there is nothing in the behaviour of butterflies in a garden to support the popular scientific theory that we owe the bright colours and dainty markings of flowers to the aesthetic tastes of honey-seeking insects. To a Red Admiral the appearance of a flower seems to make no difference. Provided that it offers "sweets" to his taste, he will as readily resort to a rotten Pear, or to the sugary mixture spread by entomologists on the trunks of trees, as to any flower. Indeed, if your attention happens to be drawn in autumn to the dark stain on a tree trunk caused by the ill-smelling slime that exudes through the bark when goat-moth caterpillars are devouring the



CAMPANULA PYRAMIDALIS (7 FEET HIGH) SELF-SOWN IN WALL.

butterfly as either of these, but more richly subdued in colouring, with variant shades of tawny, brown, and black, and faint azure lunules round the margins of its wings. Even the common small Tortoiseshell is a gem, with its bright contrasts of yellow, orange, and

inner wood, you may often see Red Admirals greatly disputing with hornets and wasps for the liquor. Nay, it was at such a strange feast that I discovered as a boy the first Camberwell Beauty that I had the good luck to see. So long, however, as your "butterfly corner" contains the right kinds of flowers, you need not fear that the butterflies will desert it for these "dainties."

THE BEST "BUTTERFLY FLOWERS."

Of all flowers known to me, that which the Red Admirals, Peacocks, and Tortoiseshells seem to like best is Peppermint; but as you cannot have this untidy herb spreading all

and creeping thing that feeds on honey, and in mild weather during autumn, whether you visit the Ivy by day or by night, you will always find a wondrous company of insect guests assembled.

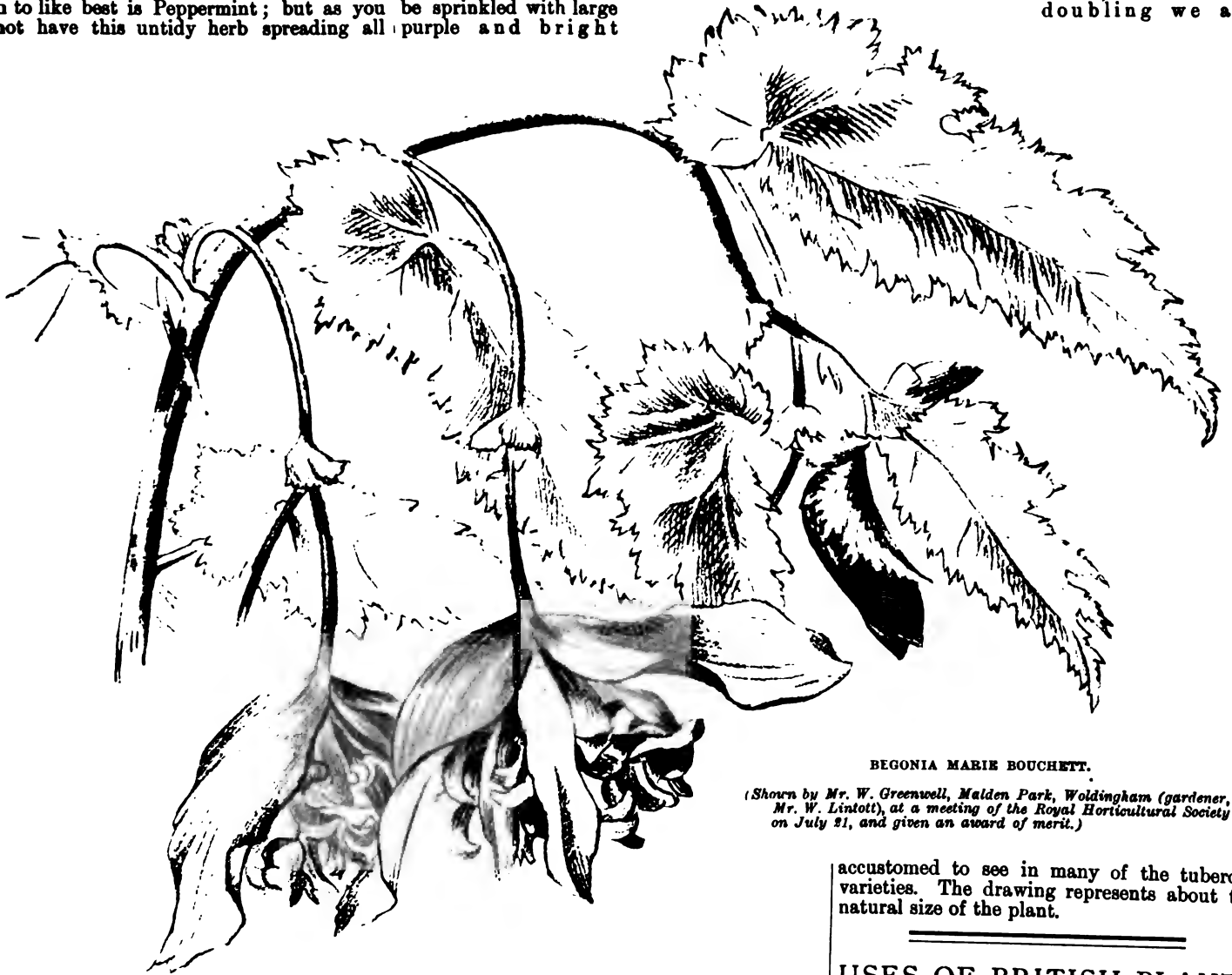
FROM SPRING TO AUTUMN.

In spring the same butterflies that gathered for their last meal on the Ivy bloom may meet again where wild Hyacinths grow in plenty; and I have seen natural beds of these flowers whose blue haze seemed from a little distance to be sprinkled with large purple and bright

AN ARTIST'S NOTE-BOOK.

A NEW BEGONIA FOR BASKETS.

BEGONIA MARIE BOUCHETT should be taken note of by those who wish for a good basket plant. It was exhibited at a meeting of the Royal Horticultural Society recently. Many of the trailing shoots were quite 4 feet long, and the plant was 3 feet or more across. The flowers are scarlet and quite double, but not the doubling we are



BEGONIA MARIE BOUCHETT.

(Shown by Mr. W. Greenwell, Malden Park, Woldingham (gardener, Mr. W. Lintott), at a meeting of the Royal Horticultural Society on July 21, and given an award of merit.)

over the place, it is fortunate that a trio of popular garden flowers run the Peppermint close. These are Scabious, Sedum spectabile, and Michaelmas Daisy, of the compact blue varieties especially. The flowers of all kinds of Thistles are very attractive, too, and I do not think that handsome butterflies are seen anywhere to such advantage as when two or three are spreading their wings together on the deep blue blooms of Thistle or Sea Holly. French and African Marigolds are "butterfly flowers" also, as well as Verbena and that old-fashioned flowering herb, the Tansy. Later on, however, your garden will contain nothing to tempt the butterflies from flowering Ivy. In the Ivy bloom Nature provides the year's late supper for every flying

yellow Lilies, from the number of Peacock and Brimstone butterflies that were hanging to the Hyacinth bells. As, moreover, flower-haunting hawk-moths will visit a garden which pleases them at any season of the year, and are almost more interesting from their swift mysterious ways than the butterflies, it is well to remember that wherever there are Petunias and Red Valerian, Jasmine and Honeysuckle, there will be hawk-moths. Among trees, the Lime, Sycamore, and Willow are most attractive to moths; and of shrubs, perhaps the Syringa, Snowberry, Privet, and Laurel. In July, however, almost every honey-seeking insect of your garden will desert it for the Bramble, flowering in the neighbouring hedges. The Sallow in spring, the Bramble in summer, and the Ivy in autumn offer the three great flower feasts of the insect world. E. K. R.

accustomed to see in many of the tuberous varieties. The drawing represents about the natural size of the plant.

USES OF BRITISH PLANTS

VIII.—ROSACEÆ.

SLOE OR BLACKTHORN (*Prunus communis*).—This is the origin of the Bullace (sub. sp. *insititia*), and of the Plum (sub. sp. *domestica*), being common in hedges, &c., all over England. It has spines or abortive branches in the wild state; but these become developed into branches under cultivation, so that Plum trees become spineless. The fruit is too astringent for food, but makes a fair conserve. British port wine has been made with it, and the juice affords a good marking ink. Some sixty years ago the leaves were collected for making "lie" Tea, and advertised as a substitute for Tea leaves. The present writer possesses a sample of it; but as it was employed in adulterating China Tea it was suppressed. The bark of the Sloe, being astringent, has been used as a substitute for cinchona in ague and fever. The wood is particularly strong, so is useful for the teeth of rakes, &c.

The sub-species *Bullace* has globose drupe, black or yellow in colour. It is occasionally wild; but doubtfully so in many places. It extends to North Africa and the Himalaya. It is somewhat austere in flavour, but much less so under cultivation. The second sub-species, the domestic Plum, is only indigenous in West Asia. Plums of many sorts have been grown since the ancient days of Greece and Rome. Thus the Damson is mentioned by Pliny as having been introduced from Damascus into Italy before 100 B.C. The Green Gage came from Chartreuse and was brought there by Claude, the wife of Francis the First, and is still called *Reine Claude*. Prunes are a variety especially cultivated in South France and dried. Plum trees constantly throw up suckers from their roots, by which they might be propagated, but they are generally grafted in order to retain good sorts.

Cherry (*Prunus* sp.).—This fruit is derived from three British species. The wild or Dwarf Cherry (*P. Cerasus*) occurs in many parts of England and is regarded as indigenous. It is the origin of the Morello, Duke, and Kentish Cherries. In the wild state the fruit is small and acid. *Gean* (*P. Avium*) is found in copses and woods; but is probably wild only in the south. It is the origin of the Geans, Hearts, and Bigaroon Cherries. Pliny says of it: "The Cherry did not exist in Italy until the victory of L. Lucullus over Mithridates, in the year of the city 680. He was the first to introduce this tree from Pontus, and now, in the course of 120 years, it has travelled beyond the ocean and arrived even in Britannia." It extends from Europe to the Himalayas, and is called *Ceras* in Persia, so that this word is probably the origin of the name. The wood is very compact, so is useful for cabinet work and for pipes. On the continent a spirit is distilled from the fruit known as *Kirschenwasser*. *Noyau* and *Ratafia* are said to be flavoured with the kernels, which, like the Almond (another species of *Prunus*), develop prussic acid. *Maraschino* is also prepared from a variety of Cherry grown in Dalmatia.

Bird Cherry (*P. Padus*) is the third British species, also occurring in copses and woods. It has racemes and not umbels of flowers. It bears small, black, and bitter fruit, and was used in Scotland to flavour gin and whisky. Birds are fond of the fruit, hence its name. The wood of

this species is very prettily veined, so is used by cabinet-makers, but is rather small, being more useful for the handles of tools.

Meadow Sweet (*Spiraea Ulmaria*).—This familiar herb, frequenting ditches by roadsides and meadows, etc., is also called *Queen of the Meadows*. It was supposed to have medicinal virtues in its fragrant flowers, but without any good reason. It was one of fifty ingredients in a drug called "*Save*," mentioned in Chaucer's "*Knight's Tale*," when after the battle, "eek save they drunken, for they wolde here lymes have." It was called *Medwort* in the fourteenth century.

Dropwort (*Spiraea Filipendula*).—This occurs in dry pastures, as the Chalk Downs of Sussex. It has pinnate leaves and tuberous roots, which have been used as food in times of scarcity on the Continent. In the Middle Ages it was called *Philipendula* and *Fisalidon*, and was supposed useful for the stone. Being hard, it was beaten up with the stony Gromwell fruits and Cherry stones on the principle of "like cures like."

Raspberry (*Rubus Idæus*).—The wild Raspberry takes the place of the Blackberry in the North, as about Perth and even at Buxton in Derbyshire, occurring in woods and hedges. The berries are as pleasant to eat, but smaller than those of the cultivated variety. It is said that the inhabitants of Skye use them for making syrup and spiritous beverages. As also in Poland the juice is simply fermented. Gerarde figures and describes it as *Rubus Idæus*, the *Raspis* bush or *Hindberrie*, but speaks of the fruit as "of taste not very pleasant." It was called *Raspa* in the fourteenth century, and Raspberry wine was then made from it and used as medicine. It derives its name *Idæus* from "*Mount Ida* on which it groweth" (Gerarde). The Raspberry was first transplanted and cultivated in the reign of Edward I. in the thirteenth century.

Blackberry (*R. fruticosus*).—This has numerous sub-species and varieties. Used as a drug in the Middle Ages, it is now one of the very few wild fruits of this country, which is largely collected and sold by the fruiterers.

Cloudberry (*R. Chamæmorus*) is a native of the mountains of Scotland and Ireland. It is quite a dwarf plant, under 12 inches in height. The fruit is of an orange colour, well flavoured, and sometimes made into a preserve; but it is more used in

Scandinavia, where the plant is abundant. It is cooling and delicious fruit eaten with sugar and cream. Vinegar is also made by the fermentation of the fruit. GEORGE HENSLOW.

(To be continued.)

THE ROCK GARDEN.

ROCK GARDEN - MAKING.

XII.—ROCK BUILDING ON ABRUPTLY SLOPING GROUND.—ROCKS ON A LARGE SCALE.

IN the last chapter I pointed out what I consider the most effective way of dealing with rocks built on abruptly sloping ground. The illustration there given showed a portion of some completed work on rather a small scale. I will now briefly consider the construction of rocks on a larger scale under similar circumstances, i.e., on a slope more or less abrupt, and by way of illustration I have photographed a portion of Mr. P. Singer's rock garden at Pailinton.

If, even in small rock gardens, it is necessary for the sake of picturesque effect to have the rocks not too continuous, but well broken up, this becomes still more important in the case of a rock garden on a large scale. Bold effects in a large rock garden are very necessary. To produce them we must provide a series of absolutely distinct features, which, however, should be so grouped as to be harmonious when seen as a whole. The rocks, for instance, in one place may appear very bold and massive and almost bare of vegetation, whilst in another the plants may appear thinly scattered or crowded together in masses. Rocky projections might vary with deep recesses or caves, or solid rocks with scattered fragments, and here and there grassy banks or a trickling stream might still further vary the scene. A series of different pictures welded into one is perhaps the best definition of what a large rock garden should be.

Not only should the features of such a rock garden vary as much as possible, but there must also be different modes of access. We may, of course, have a comfortable main gravel walk winding through the rocks, and branching off from this we may have a few smaller paths winding still more, but to make every part of the rocks accessible by means of such paths would be a great mistake. There would have to be too many paths, and these would detract from a natural appearance. On the other hand, it is most desirable that a rock garden should be so arranged that every plant can easily be reached, but this can be done without formal paths. One of the easiest and, at the same time, most natural ways of accomplishing this is by means of irregularly connected patches of grass between the groups of rock or by stepping-stones protruding irregularly from a carpet of flowers and greenery. On sloping ground a dried-up streamlet forms a most convenient mode of access, as it can be made to appear most natural. I will have more to say about the construction of this. But on abruptly sloping ground the most convenient and practical method of communication between the highest and the lowest parts is by means of steps. Steps which are in direct continuance of a path might be made perfectly regular either of wooden slabs or stones—preferably the latter—because they would be permanent and not liable to decay. Among the irregular portions of a rock garden rocky steps are more convenient and picturesque. Rocky steps should be a comfortable staircase without in the least looking like one.



ROCKS ON A LARGE SCALE, WITH ROCKY STEPS LEADING TO HIGHER PORTION.

Such rocky steps are plainly shown in the accompanying illustration of the rock garden at Oldway, Paignton. Though easily ascended, these steps are at the same time very irregular, and form, as it were, part of the rocks themselves. In making them care was taken to furnish them with suitable plants, so arranged that they would partly clothe the rocks without impeding access. Admirably adapted for such a purpose are plants like *Veronica repens*, *Thymus lanuginosus*, *Arenaria balearica*, *Veronica alpina*, and others of a similar nature.

In this rock garden the rocks are irregularly stratified, consisting, in fact, of limestone. On the left, in the background of the picture, will be seen a cave formed by what appears to be massive rocks, from which descends a small stream of water feeding a Lily pool and a bog-bed in the foreground. The surface of these rocks is not plastered in any way, but shows really the natural stone itself. The boulders forming the cave have the appearance of blocks of stone weighing fifty tons or more. In reality few of the stones weigh more than one ton, but these are joined together in such a way that they appear united. Most of the large rocks so constructed have their interior filled with soil for plants. The cave shown is a roomy one, and will form a cool retreat during hot weather. It is approached on one side through a cleft in the rock, and, on the other, by means of stepping-stones below the waterfall.

During the construction of this rock garden care was taken to group the plants in such a way that distinct features were produced. Small rocky beds were reserved exclusively for small alpine of the choicer kinds; in other portions were grouped colonies of *Opuntias*, *Aloes*, &c., while rock shrubs in great variety adorn the bolder and more massive rocks. In the construction considerably over 1,000 tons of stone were used, and the picture shows only a portion of the work.

Elmside, Exeter. F. W. MEYER.
(To be continued.)

ORCHIDS.

DISA CLIO.

AS mentioned in THE GARDEN last week, Sir William Smith Marriott, the Down House, Blandford, Dorset, kindly sent flowers of the new *Disa Clio*, a hybrid raised at Blandford between *D. grandiflora* and *D. Veitchii*. *Disa Clio* is thus a secondary hybrid, *D. Veitchii* having been raised by crossing *D. racemosa* and *D. grandiflora*. The latter species bears flower-stems some 18 inches high, and the lower sepals of the large blooms are bright scarlet, while the upper sepal is of a lighter colour. *D. Veitchii* has flowers smaller than those of *D. grandiflora*, of a rosy-purple colour. The new hybrid has large flowers, whose lower sepals are a lovely rich rose colour, the upper one being rather paler.

The advent of *Disa Clio* brings the number of hybrid *Disas* recorded to five. The others are *D. langleyensis* (*racemosa* × *tripetaloides*), pale rose; *Kewensis* (*grandiflora* × *tripetaloides*), rose-pink; *Premier* (*Veitchii* × *tripetaloides*), purplish-rose; and *Veitchii*. There is room for this latest hybrid, for the flowers are large and handsome, and the plant is evidently a vigorous grower, judging from the specimens shown by Sir William Marriott at the Holland House show.

FOUR NEW CATTLEYAS (NATURAL HYBRIDS).

THE following new and beautiful natural hybrid Orchids were recently in flower in the Woodlands collection:—

CATTLEYA × LUCY EMBRY.

This is a very pretty natural hybrid. The parents are probably *C. guttata* var. *Prinzii* × *C. granulosa*. It has much the appearance of a good variety of *Prinzii*, but has none of the callonities of the lip so characteristic in that variety. The granulosa character, however, is well brought out in the two lower sepals. The flower is of a perfect shape, and the sepals and petals are of a pleasing light rose shade, interspersed with a number of magenta-coloured spots, which are very noticeable on the edges of the petals. The extreme edges of the petals are creamy white. The sepals are remarkable in having a rather thickened green apex,



DISA CLIO. (The flower is about 5 inches across.)

and the blade of the lip is of a deep purple-crimson, the lobes are white with a very striking pink flush, which is deepest on the outer surfaces.

CATTLEYA × PHILIP MEASURES.

A very distinct and handsome natural hybrid, the sepals and petals much resembling those of *C. granulosa*. They are of a charming shade of ochre orange, stained with a suspicion of red ochre, interspersed with minute crimson spots. The front lobe of the labellum is of an exquisite purple-crimson, which diminishes in density towards the base. The side lobes on the outside are of a pleasing pink, which shades away almost to white towards the base, and the inner sides of the lobes are creamy white, with a faint suffusion of pink on the upper edges. Another fine form noticed was

CATTLEYA × MME. BERNARD.

a very pretty and charming natural hybrid, somewhat resembling the brilliant one just spoken of, viz., *Philip Measures*. In reality it is very near that, but differs in the sepals and petals being more sombre. They are, however, of a most exquisite soft colour, marked with a number of dark crimson spots, which are particularly noticeable at the apex of the petals, on the edges of which there

is a slight suffusion or veining of claret colour. The front lobe of the labellum is of a rich purple-crimson, which also diminishes in density towards the base. The side lobes are almost clear white, with a suffusion of pink on the edges.

CATTLEYA KRAMERIANA,

a natural hybrid, supposed to have its origin in *C. intermedia* × *C. Forbesii*, which latter it more resembles than the former; it has the appearance of a glorified *Cattleya Forbesii*. The flower is not altogether showy, yet it is really beautiful, notwithstanding its rather narrow pale lemon-coloured sepals and petals. The sepals have rather a thickened green apex. However, the real beauty of the flower is brought out in the exquisitely marked lip, which is traced and veined, with a lovely shade of chestnut-red, the interspaces being filled with a soft orange colour, paling on the front lobe, the edges of which are creamy white. From beneath the column towards the front edge of the lip run two distinct toothed lines of a chestnut-red, which are suffused in the mid-vein to a soft orange colour. It is very rare indeed that four natural hybrid *Cattleyas* can be found in bloom at one time, and only in such princely collections as Mr. Measures' can such fine things be found at all. The above new Orchids have been imported by Mr. Measures, and exist only in the Woodlands collection.

ARGUTUS.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

LITHOSPERMUM PROSTRATUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—“M. L. W.” in the “Notes from Swanswick” in THE GARDEN of June 27, kindly gives me some useful hints as to the successful culture of the double crimson Sweet William, for which I had previously asked in your columns. I will attempt to repay your correspondent with my experiences in growing *Lithospermum prostratum*, which does remarkably well with me here in Kent, so much so that I have never lost a single plant or had a sickly one so far. My advice to those desirous of growing and successfully flowering this plant may be briefly summed up as follows: Begin with good well-rooted specimens (mine came from Anthony Waterer of Knap Hill), plant carefully in light loamy soil, with sand and leaf-mould or peat added, but no manure of any kind, in a warm, sunny, and well-drained position, the roots being close against the edging stones of the rockery, or other stones deeply fixed in the soil, and more or less above the general ground level. Those that succeed and flower best with me are raised from 1 foot to 2 feet only. I seldom give any water, except in a spell of very dry weather in spring or summer, when they get an occasional soaking with rain-water. Of course, I cannot expect this lovely plant to grow as rampantly and flower as freely here as it does, for example, in the gardens at Treco Abbey in the Scilly Islands; but it is a pleasure to have nice healthy specimens, hardly ever without a few flowers on them at least, and with no sickly yellow foliage to disfigure them. Probably the presence of lime in the soil is detrimental to *L. prostratum*; my neighbour, Mr. J. C. Ley, thinks so, and I am inclined to agree with him. It may be only fancy, but it looks like a “lime-hater.” If this is the case no doubt sandstone would be better for it than my Kentish “Rag,” though with good sound hard blocks of the latter there can be only an infinitesimal amount of lime dissolved by rain or artificial watering.

Yalding, Kent.

S. G. R.

LILIES DISEASED.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This season has been absolutely the worst I have noticed, as far as the Lily disease is concerned. The old Madonna has been almost a complete failure here. Long before the flower-spikes

attained anything like their full height they were attacked by the disease. I have recently been judging small holdings and cottage gardens, and what struck me most in these gardens was the splendid lot of *Lilium candidum*. There were large clumps and fine spikes 8 feet high, and in some cases from a dozen to eighteen flowers on a spike. But I also noticed that very few of the Lilies were quite free from the disease, and in one case the lady who had charge of the flower garden complained that "the Lilies were not as fine as usual, and that something had happened to them," which she attributed to some one's carelessness in watering with "salty water." It was, however, only too plain that the disease had taken hold of them.

An expert who was looking over the gardens here told me that there were two forms of the Madonna Lily, *L. candidum* and *L. c. speciosum*. The latter variety is of Continental origin, and more susceptible to the disease than the type; indeed, he said it was the variety which had spread the disease over the country. That two distinct forms have found their way into this garden there is no doubt. Another thing which is equally clear is, when I first took charge the disease was unknown. The Madonna Lily was abundant and good, and no trouble was experienced. There have been many bulbs added, chiefly from the cottagers' gardens, as well as a few for the purpose of forcing and afterwards planted out. A strange thing about it is that this Lily will force slowly and produce perfectly healthy plants as well as fine spikes of flower. But, however carefully the bulbs are harvested and afterwards planted out, they take the disease badly the first year, and are useless afterwards.

Remedies are numerous, and, as far as my experience goes, useless also. I treated 500 bulbs in the following way: I dug them up in August, spread them on mats in the full sun. After they had become quite dry they were covered with sulphur and fully exposed to the sun. They were frequently turned about in the sulphur. After a fortnight of this kind of treatment, I placed them in a cement cask in layers, and covered each layer with black sulphur. The casks were covered over by a close-fitting lid and kept perfectly dry. At the end of September they were planted in a rather poor light soil. Each bulb was placed on coarse road sand and a little sulphur. They grew well, and the first season all looked like succeeding. Fairly good flower-spikes were produced and healthy foliage. This year, however, they are a complete failure, not a trace of foliage could be seen at the end of June. In the hardy border, however, there were, and are now, some fairly good spikes of bloom, and these are struggling among German Iris and other strong-growing plants. Is it shelter they require early in the spring? A.

IRIS MONNIERI AND IRIS AUREA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The above are two of the best late Irises in cultivation. No garden where hardy plants are grown is complete without these Irises; both are most striking and ornamental plants. Perhaps they require a little more care than the ordinary German varieties. They certainly like good soil and plenty of moisture during the warm weather, and less of the latter during the winter months. When well grown they are noble plants; the colour of the flower is a good yellow. One thing I have noticed about these Irises is, that they certainly do like a change of soil oftener than the German varieties. If left in the same place for several years they become weak and gradually die, starting from the middle of the plant. They, however, soon recover when divided and planted in new and good soil. This season, in common with most things in the garden, they came into flower very late—second week in July—just while we were experiencing a short spell of hot weather, consequently they did not last quite so long as one could wish. A bold group of these Iris well flowered is a distinct feature in the hardy border.

I remember seeing them in a most flourishing condition in the late Rev. H. Ewbank's garden.

I. Monnieri was from 3 feet to 4 feet high. The flowers were correspondingly large, and, being planted in a bold group, the effect was good. Some time after several large pieces were sent here from the Ryde garden. These Irises have done fairly well here, but neither has attained anything like the vigour they did at Ryde. Another distinct Iris I saw, and which was afterwards sent here from St. John's, was *I. spuria*. This is a very free flowering species, making free growth. The colour of the flower is distinct yellow and greyish blue. It is by no means rare, but I mention it because it is interesting, and a fairly good border plant. This is not so particular about soil, and will thrive under the same conditions as the ordinary German varieties.

Cirencester.

A.

HUMIDITY IN FRUIT HOUSES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In a recent issue of *THE GARDEN* Mr. Parker directs attention to the question of the atmospheric treatment of houses for the forced growth of Peaches and Vines. With many of the items set forth in Mr. Parker's notes the majority of your readers will readily agree, because in them are embodied plain truths, and the results of experience. Mr. Parker very truly says that the modern structure is made as air-tight as possible, at the same time suggesting that the old time vinery was not so much so, but, except for the smaller squares of glass used, I do not think much fault could be found with their air-tight state. In the modern structure the process of ventilation is simplicity itself. A hundred feet can be ventilated with greater dispatch than one light can often be opened in the old-fashioned roller-sliding, weight-balanced ventilator. Mr. Parker deals with imperfect ventilation; another evil almost equally dreaded has probably not troubled him much, namely, mildew. Two instances occur to my mind where mildew was introduced by changes of attitude on the part of those in charge. In one, the vinery had been allowed to lapse into a state of dilapidation, which was continued for some time, sufficient, at any rate, for the vines to have become accustomed to their airy surroundings. The time came when repairs became necessary, and those in charge of the Vines, not taking into account the more air-tight state of the house, gave similar treatment to that so long practised. The consequence was the atmosphere became over-charged with sun-heated vapour before air was admitted in the morning, and before long traces of leaf mildew were evident. The evil of mildew on Vines is that, once established, there is much difficulty in again eradicating it entirely from the house. It cannot always be stamped out in a season. The second case referred to was brought about simply by the laxity of the attendant in giving air in the early morning, and the sun striking on the roof early made the temperature rise above its normal state. An effort then to reduce this excess of heat by widely-opened ventilators brought in the fungoid fiend, attacking as it did, both leaf and berry. For several seasons efforts were made to stamp it out, and only by the persistent use of sulphur and other specifics was it destroyed. It is a good rule in summer time to open the ventilators before the sun has an influence on the inside atmosphere. If this is done the danger of promoting an over-heated and stuffy atmosphere is avoided for the rest of the day, and instead there is a coolness, even under the midday sun, that could not be otherwise obtained. Needless to say a gradual extension of the ventilators is necessary. Mr. Taylor, when gardener at Longleat some years ago, made it an invariable rule in spring and summer for the ventilators of the famous vinery in those gardens to be opened at 6 a.m., no matter what the state of the weather might be. Sufficient warmth came from the hot-water pipes to keep the atmosphere buoyant, and with a perfect system of ventilation in the spacious roof lantern no harm arose even without sun or from a rainstorm.

One remark of Mr. Parker's is not quite clear, wherein he says, "the foliage that has been

dripping with moisture all night is subjected to, perhaps, two hours' sunshine before ventilation is given to allow undue moisture to escape." An excessive use of the evaporating trough and late damping down of the floors must be practised to bring about a dripping state of the foliage in the early morning. I find the air of the house, and consequently the foliage, to be dry at this early hour, often so much so that a little damping down is at once beneficial. I find air roots are emitted by Vines that are forced early in houses not sufficiently pipe-heated. With ample hot-water pipes to maintain the requisite temperatures, without resorting to excess of fire-heat, a more equable state of atmospheric moisture and temperature is maintained. These roots, too, once set in action, can be accelerated in their growth by the use of liquid manures in the evening for damping the floor surfaces. This we have proved for several years, and we do not look upon these air-fed roots with any misgivings as to their cause or purpose. Vines with their roots partly outside and partly in produce these air roots freely when forced rather early in the year. We have one small house thus treated that each year provides air roots, and these same Vines not only give a very good and useful crop, but continue in robust health and vigour.

Other divisions of the same range do not produce air roots, because they are started more naturally into growth, and there is not the same need for the long-continued closed ventilator. A dry and atmosphere, caused by the presence of a boiler flue, may easily bring about an attack of red spider if that particular spot be neglected in the matter of ventilation, damping down, or a timely syringing.

W. STRUGNELL.

THE DOUBLE CRIMSON SWEET WILLIAM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I notice that enquiries have been asked regarding this plant, and on page 66 Mr. Jenkins gives valuable information as to its behaviour in heavy soil. I observe he has not found it a success in light soils. Regarding its culture in the latter I may say that when residing at Farnborough Grange, Hants, I grew this with many other uncommon hardy plants, such as the small double White (or Scotch) Rocket and the old double Siberian Larkspur. The gentleman I served had an intense love for hardy plants, and the double Sweet William was a great favourite. Accordingly, I made every effort to grow it, and I found no difficulty in keeping up a stock of healthy plants. My method was to propagate some plants every year by cuttings, rooting them in July under hand-lights and planting them out in early spring. They flowered so profusely the second year that generally they were of no further use, and having young stock they were destroyed.

Charl.

J. CROOK.

THE PINE-APPLE IN THE TROPICS.

Of all the strictly tropical fruits there is none that is grown as extensively as the Pine-apple. Many thousands of acres are devoted to its culture in Southern Florida, which is the only section where it succeeds within the United States. Our markets are so well supplied with the home-grown product that but few Pine-apples are imported, although a few years ago all that were consumed were grown in Jamaica and other tropical islands. There are two methods of culture. One is in the open field, just as Cabbages are grown. The other plan is to plant under lath sheds, which admit of growing the most tender varieties; fruit of the largest size and most delicious flavour is then obtained. The variety generally grown under sheds is the Smooth Cayenne. Abakka and many others are also grown to some extent. These sheds are about 7 feet high, and are made in a substantial manner. It has

been found by experience that shedding not only makes it possible to grow Pine-apples where there is a little frost, by covering over with maulin in winter, but the shedding does good in summer by tempering the fierce rays of the sun. Red Spanish is the variety commonly grown in the open field. The plants are set about 2 feet apart each way and kept free from weeds. They bear about two good crops, and are then dug up and the ground replanted.

H. E. VAN DEMAN.

GARDENING OF THE WEEK. THE FRUIT GARDEN.

PEACHES.

SHOULD we have a change to dry weather one of the most important matters in the management of late Peaches under glass will be the liberal application of water to the roots and foliage. With every leaf and branch spread out and trained within 2 feet of the glass, a mere surface watering is of very little use to inside borders at any time, and when the heavy strain of a full crop is in force a

off and properly repaired and painted under cover, when the material used will last much longer than it would do after the houses are at work and the wood is more or less charged with mixture.

SUCCESSION HOUSES.

As these are cleared of fruit the first work will be copious washing to cleanse the foliage and watering to set the roots and lateral shoots in action. Then will follow the annual cutting away of the shoots which can be dispensed with to ensure the proper ripening of the trees.

MELONS.

Where efficiently heated pits or houses are used for winter Cucumbers the last batch of Melons should be put out. If some free, quick turning in variety, like Eastnor Castle, Blenheim Orange, or Improved Victory of Bath, is used, the crop will be ripe by the middle of October, which is quite late enough to expect really good-flavoured fruit, and a very good time for putting out strong plants of Telegraph Cucumber. Unless the weather continues very bad no fire-heat will be needed before the female blossoms begin to open, but it will be necessary to plunge the pots in a brisk heat of 80° to 90° from fermenting leaves or tan, and to place them within the influence of the bottom-heat pipes, as they

should everywhere present a tidy appearance. The extreme heat experienced last month has been most trying to many things, but where sufficient labour has been at command to keep them well supplied with water many of the summer-flowering plants are now a wealth of blossom. If a good mulch has been spread over the beds, as previously advised, Tea-scented Roses and many herbaceous plants will continue to bloom profusely, even though no water may be given them.

ZONAL PELARGONIUMS

are now very beautiful and attractive, and will soon be at their best. Pick off old flower-trusses and seed-pods; these, with all decaying leaves, should be picked off at least once a week, and the soil thoroughly watered, manure water being occasionally used to stimulate the growth. Attend to the tying up of all tall growing plants to prevent wind and rain breaking them down and thus spoiling their beauty. Continue to peg down and regulate the growth of all trailing plants such as Verbenas, Heliotropes, and Petunias, so that the soil may be covered as speedily as possible. This is also the flowering season for one of the most beautiful annuals we have, Phlox Drummondii, and as every year brings forth new varieties, some of which may be superior to the old, it would be well for amateurs and others to make themselves familiar with the new strains. *Grandiflora coccinea* is a fine scarlet; *G. splendens* a vivid crimson. The Star varieties, with white margins, are also very fine.

LILIUMS.

Lilies may be planted out from August to April, or later, according to the season, but it may be laid down as a rule that all Lilies are best removed to their allotted stations as soon as possible after flowering. Lilies planted now will get the benefit of the first rains that fall, which will cause the emission of new roots, which maintain their activity all the autumn and winter. The Madonna Lily may now be lifted with entire safety. With this Lily avoid deep planting, nothing is more injurious to it than having its bulb 6 inches or 8 inches below the surface. *Lilium chalcidonicum*, on the other hand, should be planted not less than 6 inches deep; a light rich soil suits it well. Never apply fresh manure at the time of planting; this is generally held by all Lily growers to be fatal to the bulbs. A good mulching of thoroughly rotten manure during the winter months will be found to be most advantageous. T. B. FIELD.

Ashwellthorpe Gardens, Norwich.

INDOOR GARDEN.

RICHARDIA AFRICANA.

PLANTS that have been allowed to remain in a dormant condition until now should have the old soil shaken out and the tubers sorted over into two or three sizes. Pot them up in a compost rich in humus, and rendered porous by the addition of coarse sand or broken oyster shells. The largest tubers should be potted singly in 8-inch pots, and for the second size 6-inch will be sufficient. Where it is necessary to increase the stock the smallest tubers may be potted three round a 6-inch pot. If large specimens are required select three or four tubers of equal size that will make a uniform plant. These may be potted into 9-inch or 10-inch pots, according to the strength of the tubers. Drain the pots well, as the plants when growing require plenty of water. After potting place the plants in a cold pit, and give but little water until they begin to make fresh roots.

TULIPS.

The same treatment and soil as recommended above are suitable for all the early varieties of Tulips. Narcissi are better when grown in pots. I find them more difficult to lift and make up than either Hyacinths or Tulips, they also prefer a little stronger soil; and, except for the very early Polyantha varieties, such as improved Paper White and Soleil d'Or, it is desirable to add a little well rotted cow manure to the compost. Of the early varieties named five bulbs may be placed in a 6-inch pot, and of the later strong growing varieties three bulbs will be sufficient; in each



PINE-APPLES IN SOUTHERN FLORIDA.

watering that does not reach the drainage frequently induces the premature ripening of the fruit. To avoid this, let all inside borders be heavily mulched and well watered. Syringe copiously every fine morning, and again about four o'clock in the afternoon, when the house may be closed for two hours to swell the fruit. Elevate all the Peaches that can be got up by placing short pieces of lath under them and across the wires of the trellis. Give night air, much or little, according to the intended period of ripening, and, if portable, draw the lights quite off for a few hours on fine settled days to infuse colour and to give the fine flavour which Peaches grown in cold or warm houses never attain. When elevating the fruit make a point of shortening back every shoot that will be taken out after the fruit is gathered, for the twofold purpose of increasing the size and letting in light and air. The weather up to the present time has not been sufficiently warm and settled to admit of stripping the early house; but in the event of a change the lights may be taken

will be indispensable when the fruit is setting and ripening. They will then grow away freely without a check, and will set plenty of fruit on the first laterals. If 12-inch pots are used allow each plant to carry a pair of evenly-set fruit. Top-dress when they begin to swell, and feed at every watering. Keep the plants thoroughly under command in pits and frames. Train the leading shoots towards the extremities, pinch out the points when 1 foot from the sides, thin out the laterals, and fertilise every flower as it opens. Feed well and water overhead with water at a temperature of 85° to 90° about 3 p.m., and shut up for the day. Cover up at night, and give a little air to let out steam, as linings must not be neglected for bottom-heat. WILLIAM CRUMP.

Madresfield Court Gardens.

FLOWER GARDEN.

JUST at this time of the year the pleasure grounds and the flower gardens are full of interest, and

case allow half an inch of the apex of the bulb to appear above the soil. When the potting and boxing are completed give them a good soaking of water, and allow them to remain in the shed or under cover until the next day, when they may be plunged in fine ashes, covering them 2 inches or 3 inches deep. Select a space for them shaded from the full sun and free from stagnant water.

ROMAN HYACINTHS.

The season for planting these is again at hand, and for the earliest crop of flowers bulbs should at once be potted. Boxes of convenient size, 2½ inches deep, may be used in which to plant the bulbs; first fill them three parts full with a light rich soil, composed of loam, leaf-soil, and one-fourth part of old Mushroom-bed manure, rubbed through a fine sieve to destroy any grubs, with a good addition of sand, press the soil firmly and place the bulbs 1½ inches apart each way. Fill up the boxes until the apex of the bulb only is exposed. One advantage of the use of boxes is, that as the bulbs lift readily when in bloom, pots can be made up of uniform appearance as required.

CALCEOLARIAS.

As soon as the young seedling plants are large enough to handle prick them off five or six round the rim of a 3-inch pot, and for a week or ten days keep them rather close in a cold moist frame, raised near the glass and shaded from the sun. Sprinkle them lightly overhead each morning.

Wendover.

J. JACQUES.

THE KITCHEN GARDEN.

SPINACH FOR WINTER.

This is a very important crop, providing as it does in winter many dishes of a wholesome green vegetable. A good breadth may now be sown, and another in ten days or a fortnight. A plot of ground that has carried an early and not too exhaustive crop, such as Peas, Beans, Lettuce, and the like, will suit Spinach, and no manure will be required at this time. Make the ground level and tread firm, and sow the seed thinly in drills 15 inches apart. If the ground is dry a good watering should be given the preceding day. Good varieties are The Carter and Prickly.

COLEWORTS.

As soon as the plants are large enough plant out on a piece of good ground. These may be planted closer together than is advised for the ordinary Cabbages that are to stand the winter. They do not usually attain to large size, and do not remain upon the ground for any length of time.

MUSHROOMS.

The beds made up in the open as advised in a previous calendar will now be bearing, and the surface must be kept covered with sweet litter to conserve moisture. Avoid giving water as far as possible, but should it be necessary to do so let it be lukewarm, and remove the litter during the operation. One or two applications of well-diluted liquid manure will be beneficial just as the "buttons" commence to show. Manure should now be collected for forming beds in the Mushroom house; the produce from beds made now should closely follow those from the outside ones and from the fields. I am in favour of retaining a good portion of the straw in the manure for mixing with the droppings, and beds formed of these alone are apt to be wet, and quickly become cold and unproductive.

CUCUMBERS.

Seed may be sown for producing plants for fruiting in winter, or cuttings may be put in a week or ten days hence for the same purpose. Plants that are still bearing must have the unfruitful wood removed, and every care taken of that showing fruit by tying to the trellis as growth progresses. Cut all well-shaped fruits as soon as they attain a useful size, and place on end in 1 inch of water. All malformed ones should be cut off while small. Feed the plants frequently, and top-dress with rich soil when white feeding roots show upon the surface of the soil.

Stonleigh Abbey Gardens.

H. T. MARTIN.

SOCIETIES.

SOUTHERN COUNTIES CARNATION SHOW.

THIS is one of the most important societies in the south and the exhibition recently held was excellent in all ways. It was the sixth annual display, and the best, probably, that has taken place. It was held in the Pavilion of the Royal Pier, Southampton, happily in fine weather, and there were no fewer than 350 entries, apart from miscellaneous exhibits. The

MISCELLANEOUS EXHIBITS

filled a large space, and contributed greatly to the brightness of the show. Messrs. W. H. Rogers, Limited, had a most tasteful display. Messrs. W. Cutbush and Sons, Highgate, showed some superb Carnations; and a miscellaneous group of Palms and other plants came from Mr. Garton, Roselands, Woolston. A pretty little group from Mr. W. Garton, jun., attracted much attention; the Carnations were excellent. Sweet Peas were finely shown by Mr. Breadmore of Winchester. Messrs. Blackmore and Langdon of Twerton Nursery, Bath, had a collection of their wonderful tuberous Begonias. These were one of the features of the show. A very pretty exhibit consisted of the hybrid and other Nymphs from Messrs. Phillips and Taylor, Bracknell, Berks. The well-known firm of Messrs. B. Ladhams, Limited, of Shirley, had a delightful group of hardy flowers, including many of their beautiful Pinka. Another Shirley horticulturist, Mr. E. Wills, also had a miscellaneous exhibit.

The Carnation flowers were very fine, especially the fancy and yellow ground varieties. A Southampton grower, Mr. J. J. Keen, was very successful. Besides the Carnation class there were classes for

SWEET PEAS.

For the table of Sweet Peas nine competed, and the prizes were given by Messrs. B. Ladhams of Shirley. The first prize winner was Miss M. Snelgrove with a very light and pretty arrangement; Miss S. E. Burt was second, and Mrs. Minsbrook, Athery Road, North Southampton, was third. Nine distinct varieties in bunches of thirty, open (prizes presented by Mr. R. Sydenham, Birmingham): First, large silver medal, Mr. A. Maple, Aldermore; second, silver medal, Mr. R. H. Jeffrey; third, Mr. C. A. Linzee.

Nine varieties Sweet Peas in bunches of thirty (prizes presented by Messrs. Toogood and Sons, Southampton): First, Toogood Championship Challenge Shield, Mr. H. H. Lees, Grosvenor Road, Portsmouth; second, Mr. A. Maple; third, Sir Samuel Montagu, Bart., South Stoneham House (gardener, T. Hall).

Nine bunches Sweet Peas, distinct (prizes offered by Mr. C. W. Breadmore, Winchester): First, Mr. F. M. Middleton, Old Alresford; second, Mr. A. Maple; third, Mr. R. H. Jeffrey.

Dinner table decorated with Carnations and Picotee flowers or both: First, Miss Snelgrove; second, Mr. R. H. Jeffrey. Carnations, flakes and bizarres, twelve blooms, dissimilar: First, Mr. F. A. Wellesley, Woking; second, Messrs. Thomson and Co., Birmingham; third, Messrs. Pemberton and Son, Walsall. Six blooms, dissimilar: First, Mr. J. Fairlie, Acton; second, Mr. J. J. Keen, Avenue Road, Southampton; third, Mr. D. Walter, Kilmarnock.

White ground Picotees, twelve blooms: First, Messrs. Pemberton and Son; second, Messrs. Thomson and Co.; third, Mr. F. A. Wellesley. Six Picotee blooms, dissimilar: First, Mr. J. Fairlie; second, Mr. J. J. Keen; third, Mr. W. Spencer, jun., Windsor.

Yellow ground Picotees, twelve blooms, dissimilar: First, Mr. Martin E. Smith; second, Mr. F. A. Wellesley; third, Messrs. Thomson and Co. Six blooms, dissimilar: First, Mr. J. J. Keen; second, Mr. W. Spencer, jun.; third, Mr. E. H. Buckland, Southgate House, Winchester.

Yellow grounds and fancy Carnations (white grounds, self flowers, and yellow ground Picotees excluded), twelve Carnation blooms, disimilar: First, Mr. F. Wellesley; second, Mr. Martin E. Smith; third, Mr. E. J. Wooten. Six Carnation blooms, disimilar: First, Mr. W. E. Parton, jun., King's Heath, Birmingham; second, Mr. W. Spencer, jun.; third, Mr. J. Fairlie.

Selfs, twelve Carnation blooms, disimilar: First, Messrs. Thomson and Co.; second, Mr. Martin E. Smith; third, Mr. F. Wellesley. Six Carnation blooms, disimilar: First, Mr. F. W. Flight; second, Mr. W. H. Parton, jun.; third, Mr. David Walker.

SINGLE BLOOMS.

Carnations, bizarres and flakes, scarlet: First and second, Messrs. A. Pemberton and Son. Crimson: First, Mr. F. Wellesley; second, Mr. R. Sydenham. Pink: First, Messrs. Pemberton and Son; second, Messrs. Thomson and Co. Purple flakes: First and second, Mr. F. Wellesley. Scarlet flakes: First, Messrs. Pemberton and Son; second, Mr. F. W. Flight. Rose flakes: First and second, Messrs. Thomson and Co.

Picotees, red heavy edged: First, Mr. J. J. Keen; second, Mr. W. Spencer; third, Mr. F. Wellesley. Purple heavy edged: First and second, Messrs. Pemberton and Son; third, Mr. D. Walker. Rose heavy edged: First, Mr. W. Spencer; second, Mr. R. Sydenham; third, Messrs. Thomson and Co. Scarlet heavy edged: First and second, Messrs. Thomson and Co.; third, Messrs. Pemberton and Son. Red light edged: First, Mr. J. J. Keen; second, Mr. S. Hayter; third, Mr. R. Sydenham. Purple light edged: First, Mr. W. Spencer; second and third, Mr. F. Wellesley. Rose or scarlet light edged: First, Mr. F. Wellesley; second and third, Mr. J. J. Keen. Yellow ground heavy edged: First, Mr. J. J. Keen; second and third, Mr. F. Wellesley. Yellow light edged: First, Mr. H. W. Matthias; second, Mr. E. H. Buckland; third and fourth, Mr. E. Smith.

Selfs, any colour: First, Mr. E. J. Wooten; second, Mr. F. Wellesley; third, Mr. M. R. Smith. Fancies (single bloom): First, Mr. F. Wellesley; second, Mr. M. R. Smith; third, Mr. W. Spencer.

Premier Carnations—Bizarre: Mr. F. Wellesley, with S. Hedderley. Flake: Messrs. Pemberton and Son with

Flamingo. Self: Mr. W. Spencer, jun., with Sir Roy's Fancy: Mr. F. A. Wellesley with Charles Martel.

Premier Picotees, white ground: Mr. F. A. Wellesley with Fortrose. Yellow ground: Mr. H. W. Matthias, Thames Ditton, with Pilgrim.

HUYTON AND ROBY.

THIS popular annual event was held in the grounds attached to the Public Offices, and was, notwithstanding the wet weather, attended with good results. The exhibits were fully up to the average, the greenhouse flowering plants being perhaps as near perfection as one could wish, while the fruit and cut flowers were never seen to greater advantage.

There were two excellent groups of plants for effect, the first prize going to Mr. T. Henshaw (gardener, Mr. J. George), Whitfield House, Roby; Mrs. Harding (gardener, Mr. H. McFall) was a close second.

The stove and greenhouse plants, superb Caladiums, and fine specimen Fuchsias made a bold lead for Mr. G. H. Nisbett (gardener, Mr. J. Hare), Huyton Hey House. Mr. A. Mackenzie Smith (gardener, Mr. W. Lyoe) was a successful winner in many classes—the two classes of double Begonias, single Orchid, four Gloxinias, Ixora Pilgrimii (which also gained the special prize for the best specimen in the show), and for sprays and buttonholes. Mrs. Harding had the distinction of taking the prizes for Ferns, single Caladiums, and well-coloured Coleus. Mr. J. Stone (gardener, Mr. D. McKelvie), Blacklow House, Roby, won with well flowered specimen Liliums, superbly coloured table plants, and stove cut flowers.

Roses were only moderate, Mr. W. H. Crook (gardener, Mr. J. Burrows) taking a good lead in three classes, also with a capital selection of Sweet Peas. Herbaceous plants contained the unusual selection shown at this season, Mr. Henshaw securing both prizes with a charming assortment well set up, and was first for twelve Carnations.

The table decoration special prizes went to Mrs. Harrison for a somewhat heavy arrangement of deep rose Sweet Peas, grasses, and Smilax tracings; Miss McCollum second with Iceland Poppies; third, Miss Fishwick with Plumbago capensis.

Mr. J. Beechan, J.P. (gardener, Mr. W. Oldham), Ewanville, Huyton, was invincible in the fruit classes with handsome black Hamburg Grapes, Royal Sovereign Melon, Royal George Peaches, and Violet Hative Nectarines; Mr. J. Stone was an excellent second.

To deal with the numerous vegetable classes would encroach on space too much. It only need be said that for quality and keen competition in both professional and cottagers' classes, they would surpass anything hitherto seen in the neighbourhood. Mr. T. Henshaw, Mr. A. Mackenzie Smith, and Mrs. Harding were the leading winners in the open class. The society is indebted to many ladies and gentlemen for special prizes. Mr. George Roscoe winning Lady Derby's, and Mr. Wall Mrs. Partington's for the best kept allotments.

Mr. H. Middlehurst showed a rich selection of Sweet Peas, many new ones included. Mr. C. Young, West Derby, had some boxes of splendid Carnations. Messrs. Caldwell, Knutsford, had Roses and herbaceous plants of good quality, and Mr. Roby seedling Begonias.

NEWPORT (MON.) HORTICULTURAL SOCIETY.

THE annual show of this society was held, during fairly favourable weather, in King's High Fields, Newport, on July 29 and 30, and was opened by the Right Hon. Lord Tredegar (President). The exhibits on this occasion compared favourably with those of former years. Vegetables were of good quality and largely shown, Peas and Potatoes being excellent. Among plants, Achimenes in pans and Begonias were conspicuous for their good quality. The groups of plants were also generally of much merit, and dinner table decorations were remarkably well done. Cut flowers were staged in great quantities, the herbaceous and perennial section being exceptionally good, while the leading stands of Roses contained some capital blooms. Fruit was fair in quality, Gooseberries and Cherries being excellent.

ROSES.

Teas, twelve blooms: Messrs. Townsend and Sons of Worcester, who had a good stand, secured chief honours with good blooms of Bridesmaid, Mrs. E. Mawley, Ernest Meix, The Bride, White Maman Cochet, &c.; Mr. S. Tredder, The Nurseries, Cardiff, was a good second.

Twenty-four Hybrid Perpetuals: Messrs. Townsend and Sons were again first, and staged as their best blooms Captain Hayward, M. Etienne Levet, Ulrich Brunner, Suzanne M. Rodocanachi, Helen Keller, Mile. M. Verdier, Lady Sheffield, Earl Dufferin, &c.; Mr. S. Tredder was again placed second.

Twelve glazes Sweet Peas: Only one exhibitor staged in this class, namely, Mr. Baahane, Fair Oak Nursery, Bamsaleg, but he put up a meritorious lot of choice varieties, and was deservedly awarded the first prize; while for twelve varieties of Carnations, Messrs. Tuplin and Son, Newton Abbott, were the successful exhibitors.

HARDY FLOWERS.

These were splendidly shown in a space of 12 feet by 3 feet. Messrs. Stokes and Sons, Trowbridge, who took the lead, had an exceedingly good lot, and staged, as at Cardiff last week, their beautiful new Campanula Hillside Blue. Messrs. Heath and Son of Cheltenham were placed second, and also staged a fine lot of excellent varieties.

GROUPS.

Mr. Cypher did not this year stage in these classes, and there was in consequence a falling off in the quality of the leading group of miscellaneous plants of 11 feet square. For this Mr. Carpenter (gardener to W. J. Buckley, Esq., Llanelli), was placed first, and arranged a commendable group.

Miscellaneous plants in 50 square feet: In this class there

bright well-arranged collections of suitable plants were staged. The first prize, exhibited by Mr. Lewis, gardener to Dr. Garrod Thomas, Newport, was especially good: Mr. Powell, gardener to Colonel Wallace, Newport, was a good second. For a group in a space of 25 square feet there were six entries, and each of them was good; of these Mr. Wiggins, gardener to Mrs. Wallace, Newport, had the best.

PLANTS.

Begonias arranged in a space of 25 square feet: Three beautiful groups were put up in this class, composed of fresh plants possessed of bright showy flowers. The leading one came from Messrs. Heath and Sons of Cheltenham, and contained plants with remarkably large flowers of both single and double varieties; the second place was secured by Mr. Mitchell, gardener to W. J. Orders, Esq.; and the third by Mr. J. Jones, gardener to R. Williams, Esq.

Six stove and greenhouse plants in flower: Mr. Cypher was again missed in this class, and the only exhibitor was Mr. Carpenter, who was awarded the first prize for a nice lot of plants.

Six ornamental foliage plants: Here Mr. Duff, gardener to Mrs. Williams, Brynaglan, Newport, took the lead with good plants of *Cycas revoluta*, *Latania borbonica*, *Kentia forsteriana*, *Phoenix rupicola*, *Croton Williamsii*, &c.; Mr. Carpenter was placed second.

Six exotic Ferns: Mr. Duff again led with a well-grown set of large plants; Mr. Powell, gardener to Colonel Wallace, was a close second; there were four exhibitors in this class. Mr. Powell was first for six dinner table plants and staged small Palms, *Crotone*, *Aralias*, &c.

Achimenes in six varieties: There was close competition in this class amongst six exhibitors. Mr. Powell taking chief honours with large pans of *A. Admirabilis*, *Rose Queen*, *Scarlet Perfection*, *Grandiflora*, &c.; Mr. Wiggins, gardener to Mrs. Wallace, was second; and Mr. Harris, gardener to C. F. Colbourn, third.

Four Caladiums: For these Mr. Powell was again placed first, followed by Mr. Wood, gardener to H. Oakley, Esq., and Mr. Wiggins.

FRUIT.

Six dishes: Two exhibitors staged creditable collections, the best coming from Mr. Duff, who had Muscat of Alexandria and Black Hamburg Grapes, Early York Peaches, Governor Wood Cherries, a Melon, and Whinham's Industry Gooseberries. Mr. Watte, gardener to C. D. Phillips, Esq., was a near second.

VEGETABLES.

Mr. Duff was first for six dishes, for which Messrs. Sutton and Sons offered prizes, and staged good dishes of Cauliflower First Crop, Pea Duke of Albany, Tomato Eclipse, Carrot New Intermediate, Onion Allas Craig, and Potato Sutton's Supreme; second, Mr. Richards.

Six dishes, for which Messrs. Wheeler and Son, Gloucester, offered prizes: First, Mr. Richards, while Mr. Giddens took the lead for six dishes for which Messrs. Garaway and Co., Bristol, offered prizes.

TRADE EXHIBITS.

These did much in making the show a success. Mr. Baaham, Fair Oak Nursery, Basaleg, arranged a collection of fruit trees in pots, consisting of Peaches, Apples, and Gooseberries, carrying good crops of fruit. He had also a collection of about 50 dishes of hardy fruit. Messrs. Garaway and Co., Bristol, staged a large and choice collection of stove and greenhouse plants, &c. Messrs. Tuplin and Son, Newton Abbot, arranged a stand of Gladioli, Dahlias, Carnations, &c.; Messrs. Wheeler and Sons, Gloucester, a collection of herbaceous flowers in choice varieties; Mr. E. H. Jones, Newport, Begonias, Ferns, &c.; Mr. Baggesen, Cardiff, floral wreaths, &c.; and Mr. Thomas, florist, Newport, floral crosses, wreaths, &c.

A PANSY SHOW IN SCOTLAND.

The Glasgow and West of Scotland Pansy Show held its annual exhibition recently in the Trades Hall, Glassford Street. There was a very keen competition, and the show was quite a pretty one with the addition of hardy flowers and Roses. The miscellaneous exhibits were very charming. Messrs. Dobbie and Co., Rothsay, had a very choice assortment of Roses and Pansies in rich varieties and were deservedly awarded a silver medal, and received several certificates of merit. Another noteworthy exhibit was sent from Messrs. M. Campbell and Son of High Blantyre. The chief prize winners were as follow:

OPEN CLASSES.

For forty-eight blooms of fancy Pansies the prize was the champion gold medal; the winners were Messrs. A. Lister and Son, Meadowbank Nursery, Rothsay, with a choice set; Mr. J. Smellie, Busby, second; and Mr. A. Oller, Campbelltown, third.

For twenty-four blooms Mr. Charles Kay, Gargunnoch, won the silver cup; Mr. J. Smellie second, and Mr. W. Wilson third.

For eighteen blooms the silver medal was won by Mr. James Paul; Mr. C. Kay and Mr. J. Smellie second and third.

A very interesting class was for twelve blooms of seedling fancy Pansies, the first prize being won by Mr. Kay; Mr. J. Smellie and Messrs. A. Lister and Son second and third respectively.

Messrs. A. Lister and Son were first for six blooms of any variety of fancy Pansy; Mr. C. Kay was second, and Mr. T. McGregor third.

For twenty-four show Pansies Mr. A. Oller first, Mr. C. Kay second, and Mr. J. Smellie third.

Mr. C. Kay was first for eighteen blooms of Show Pansies; Mr. A. Frater and Mr. J. Smellie were second and third.

For six seedling show Pansies, Mr. Kay first; and Mr. J. Smellie and Mr. James Paul, Killearn, second and third respectively.

Mr. J. Smellie had the best seedling fancy Pansy flowers, and Mr. J. Crow in the show group.

The best bloom of a show Pansy came from Mr. A. Oller, and of a fancy Pansy from Mr. J. Paul.

The silver medal for twenty-four blooms of Violas, in as many varieties, was won by Mr. A. Oller; Mr. J. Crowe second.

AMATEURS.

For twenty-four fancy Pansies, in at least twelve varieties, Mr. A. Frater was first, winning the silver medal; Mr. E. Young and Mr. P. Braithwaite were second and third.

For eighteen blooms of fancy Pansies Mr. J. Sweeney was first, Mr. A. Frater and Mr. M. Maxwell following.

For twelve fancy Pansies Mr. J. Kirkwood won the silver medal, Mr. J. Sweeney was second, and Mr. J. Henderson third.

For six blooms of fancy Pansies Mr. J. Sweeney was first, and also for twenty-four blooms of show Pansies.

Mr. J. Kirkwood and Mr. J. Sweeney were first and second in the class for eighteen blooms of show Pansies; Mr. J. Kirkwood being first for twelve blooms of show Pansies; Mr. T. McGregor was second.

The silver medal for six sprays of Violas was won by Mr. C. K. McPhail; Mr. W. Knox and Mr. E. W. Brown were second and third respectively.

For twenty-four blooms of Violas, in six varieties, Mr. J. Johnson was first, and Mr. A. Frater second.

For twelve blooms of Violas, to be shown as Pansies, Messrs. A. Livingstone, E. W. Brown, and A. Frater were the winners in the order named.

For twenty-four blooms of Pinks Messrs. M. Campbell and Sons a good first, and Mr. A. Brown second.

Roses were delightfully shown by Messrs. D. Robertson and Co., Holensburgh, who carried all before them, Mr. J. Russell also exhibiting well. The last named had the finest bloom in the show.

The judges at the show were: For Pansies, Messrs. E. Sutherland, Kirkintilloch, B. Stewart and W. Storey of Lenzie, and J. Smellie, Busby; of the Violas, Messrs. M. Campbell of High Blantyre and Mr. J. Stewart of Rothesay; Mr. A. Gray, jun., judged the Roses.

ROYAL HORTICULTURAL SOCIETY.

THE meeting on Tuesday last was a very small one, but many interesting plants were shown.

FLORAL COMMITTEE.

Present: Mr. H. B. May (chairman), and Messrs. C. T. Drury, George Nicholson, W. Howe, J. Jennings, C. J. Salter, G. Rantke, C. Dixon, G. Gordon, C. E. Pearson, J. Fraser, W. J. James, J. A. Nix, C. E. Shea, E. H. Jenkins, and R. C. Notcutt.

One of the most effective groups was that from Messrs. R. and G. Cuthbert, Southgate, which was composed almost wholly of *Lilium speciosum album* and *Hydrangea paniculata grandiflora*. The *Liliums* were finely grown and well flowered, and the *Hydrangeas* chiefly as specimen standard plants carried many handsome trusses. Interspersed with Palms were many examples in flower of *Criminum Moorei*, while in the groundwork Ferns and *Ophiopogons* were noted. A large array of cut spikes of white *Phlox* *Paniceae* also figured in the foreground, thus making an effective as well as an imposing group. Silver-gilt Flora medal.

Cut shrubs in considerable force came from Messrs. J. Cheal and Sons, Crawley, and among them we noted several Oaks—*Quercus pedunculata nigra*, with blackish leaves; *Q. marmorata*, a freckled leaved Oak that grouped in company with the former would be most effective in the landscape; *Platanus Suttuerii* is also a finely variegated plant, the creamy and mottled leaves very striking. Other good things were *Lycocystis formosa*, *Spiraea Anthony Waterer*, *Ulmus Dampieri aurea*, *Prunus aconitifolia*, a marble-leaved plant, *Spiraea sempervirens*, *S. Fortunei alba*, *Potentilla fruticosa*, *Oleaster Hasseltii*, *Robinia semperflora*, *Buddleia variabilis*, together with *Bambusa*, *Acer* and other things. A series of Cactus, single and Pompon Dahlias were also shown by Messrs. Cheal. The Cactus sorts were chiefly seedlings and of quite a promising character. Silver Flora medal.

Messrs. Paul and Son, Old Nurseries, Cheshunt, had a small exhibit of cut Roses, in which *R. wichurana rubra*, *R. rugosa atropurpurea*, *Lady Battersea*, *Mrs. J. Laing*, *Duke of Edinburgh*, *Cheshunt Scarlet*, *Dawn*, a fine single pink, *Frau Karl Druschki*, *Perle d'Or*, *Eugene Lameach*, *White Lady*, *Liberty*, very good, *Louis van Houtte*, very dark, chiefly figured. A very interesting display. Silver medal.

Messrs. William Bull and Sons, Chelsea, contributed a fine group of *Dracena Victoria*, the half dozen plants handsomely coloured and especially well grown. In the background were arranged *Kentias*, and in the foreground *Licuala Mulleri*, a dwarf glossy leaved plant that should be of good service. Silver medal.

From Rothesay Messrs. Dobbie and Co. sent a brilliant lot of Poppies and Pentstemons, both groups rich and varied in their beautiful forms. In the former we noted *Pink Feathered*, a charming tone; the *Peony* flowered white and red striped, *Ranunculus* flowered rose, *scarlet* *Carnation* flowered, very showy; *Ranunculus* flowered white, very chaste and beautiful; *Ranunculus* flowered scarlet, a most brilliant flower; *Ranunculus* flowered crimson, a very dark sort; *Arenarium*, *scarlet* with black blotches; *Levigatum*, rich *scarlet* with intense circle of black; and the *Shirley* in many beautiful shades. In the *Pentstemons* we noted *Augusta Cain*, a crimson self to the innermost depths of the tube and quite a rarity in these flowers; *Talma*, white and *scarlet*; *Wm. Cuthbertson*, crimson and white; *Miss Willmott*, a *scarlet*-crimson shaded sort is also noteworthy in the self coloured varieties. In the lighter forms *James Logan*, *Ireland*, *Spitzberg*, and *La Prophete* are all good effective varieties. Silver medal.

The collection of *Nephrolepis* from Mr. H. B. May, Edmonton, contained some three dozen species and varieties, some of which were of great interest. We noted *N. exaltata plumosum*, a finely tasselled Fern; *N. Mayi*, an erect growing plant, with curved pinne; *Cordifolia crispata congesta*, a very small growing variety; *N. Piersoni*, a handsome

plant; *N. affinis*, *N. Bausei*, an elegant and pleasing plant of great beauty; *N. Duffii*, *N. cordifolia alata*, very fine; and *N. acuta*, being among the best. Groups of *Campanula Mayi*, *C. isophylla alba*, *C. gloriosa*, and *C. baichiniana* were also shown in company with *Oleander rosea splendens*. Silver-gilt medal.

Messrs. Cannell and Sons, Swanley, set up a large lot of Cacti and allied things, in which many fine examples were to be seen. For example, *Echinocactus Grusoni*, with golden spines horn-like in character; *E. Emoryi*; *Opuntia papyracantha*, a very remarkable species with nearly papery spines; *Echeveria metallica crispata*, very fine; *Echinocactus Wislizeni*; *E. viridescens*; *Pilocereus Drutwitschii*, very fine; and *Echeveria Hoveyi*, a curiously variegated plant. There were also many species of *Mammillaria*. *Aloe longiaristata* is a very distinct species. *Mesembryanthemum Bolusii*, a rare species, was here in several plants. The entire group was replete in choice and rare sorts. Silver-gilt medal.

Messrs. Veitch and Sons, Chelsea, set up a group of *Lantana salicifolia*, a small-leaved plant with lovely rosy heads of flowers, and three huge examples of *Senecio olivorum*, with golden-orange flower-heads. The latter is a fine plant for riverside or wild gardening.

Mr. R. Anker, Napier Road, Kensington, showed again small examples of Cacti and allied plants in considerable variety. The plants shown were quite small generally, and hardly give an idea of the established condition of the species.

Several seedling varieties of *Gladioli* were shown by Mr. W. C. Bull, Ellington Road, Ramsgate. One of these received the award of merit.

NEW PLANTS.

Nephrolepis Piersoni.—This is an American Fern of great beauty; indeed, it is one of the most handsome Ferns we have seen. The plants as shown presented a most attractive appearance. The fronds are nearly 2 feet long, bipinnate, the pinnae rising above the rachis in a very decided manner, and in the youthful stage flushed with a pale green shade that gives a very pleasing characteristic. The award of a first-class certificate was quite unanimous. The plant was shown by Mr. H. B. May, Edmonton.

Gladioli Ellington Bella.—A very handsome and showy variety, the spike well proportioned, and the flowers large, shapely, and of good substance. The colour is heavy cream throughout the tips of the segments, very lightly touched with scarlet lines about half an inch long. Shown by Mr. W. C. Bull, Ellington Road, Ramsgate. Award of merit.

ORCHID COMMITTEE.

As was generally expected Orchids were comparatively few in numbers, but they were of considerable interest.

Messrs. H. Low and Co., Bush Hill Park, Enfield, contributed a small group in which *Cattleya Eldorado* variety, *C. Mary Gratrix*, *Cypripedium kimballianum*, *C. niveum*, *C. rothschildianum superbiens*, and *C. rothschildianum* were conspicuous.

Messrs. T. Cripps and Son, Tunbridge Wells, sent a group of *Dia grandiflora*. The plants were splendidly grown and carried flowers of large size and brilliant colouring. The exhibit was admired by everyone.

Messrs. F. Sander and Sons, St. Albans, arranged the largest and most varied group of Orchids, and it was almost solely composed of *Cattleyas* and *Laelio-Cattleyas*, several being of striking beauty. Some of the best were *Cattleya Shakespeare*, *C. The Pearl*, *Laelio-Cattleya Martineii*, *L.-C. blechyleyensis*, three distinct forms, *L.-C. callistoglossa*, *L.-C. Henry Greenwood*, *Cypripedium conanthum superbum*, and *C. Tonso-Lawre*.

Mr. C. J. Salter, gardener to Mrs. Haywood, Woodhatch Lodge, Reigate, showed a chaste beautiful form of *Cattleya gaskelliana* named *delicata*.

Mr. W. H. Young, Orchid grower to Sir F. Wigan, Bart., Clare Lawn, East Sheen, exhibited *Cattleya Mrs. Pitt* and *Laelio-Cattleya Kathleen Gray*, both of which were very handsome.

Messrs. J. Veitch and Sons, Limited, Royal Exotic Nursery, Chelsea, sent *Cattleya atalanta superba*, *Sophr. Cattleya Saxa*, and *Laelio-Cattleya Issey*, each beautiful and distinct.

Mr. J. T. Barker, gardener to W. P. Burkinshaw, Esq., West Hill, Heston, staged *Laelio-Cattleya Ivernia*, and *Cattleya gigas* *White Queen*, both of which had suffered in travelling.

Mr. H. T. Pitt, Stamford Hill, sent a small exhibit. Mr. J. Davies, gardener to Mr. J. Gurney Fowler, Glebe-lands, South Woodford, sent a few Orchids, the most prominent of which was *Laelia digbyana-purpurata* King Edward VII. There were one or two other small exhibits.

FRUIT COMMITTEE.

A NEW PEACH.

There were two exhibits before the fruit committee. Mr. Will Taylor, Hampton Hill, sent a new Peach named *Libra*, which was raised from Alexander by the late Mr. R. D. Blackmore at Teddington. It is a large-fruited early variety, of attractive appearance, and good flavour. Award of merit. Dr. Bonavia, Worthing, sent *Grape Sultanieh*, the variety from which we get the Sultanias of commerce.

LEICESTER FLOWER SHOW.

THE annual flower show and gala was held in the Abbey Park, Leicester, on Tuesday and Wednesday last. Except for a heavy shower during the opening ceremony by the Mayor the weather on the first day was very favourable, and as we left the park thousands were wending their way there. The Abbey Park is a splendid place in which to hold the show, and when tired of the display in the tents visitors can admire the plants and flowers out of doors, for Mr. John Burn, who is superintendent

of the Leicester Parks, as well as secretary of the flower show, keeps the beds and borders most bright and full of interesting plants. The courtesy of Mr. Burn towards judges and other officials and his admirable arrangements for the convenient performance of their duties are proverbial, and we need only say that this year was no exception. The bad season somewhat affected the quality of the exhibits, particularly in the fruit classes. On the whole, these were not well contested. Mr. Goodacre was the most successful exhibitor of fruit. Roses were very good, cut flowers were a fine feature, and vegetables also were very well shown.

PLANTS.

Group of plants (160 feet area): First, Messrs. Cypher and Son, Cheltenham, with a very bright and prettily arranged group; second, Mr. Thompson, Littleover House near Derby, with a very good group, though somewhat heavy; third, Mr. William Finch, Coventry; fourth, Messrs. Artindale and Sons, Sheffield.

Six stove and greenhouse plants: First, Mr. William Finch, Coventry.

Best plant in bloom: First, Mr. William Finch, Coventry, with Bougainvillea.

ROSES (OPEN).

Thirty-six blooms: First, Messrs. Alex. Dickson and Sons, Newtownards, with a lovely lot. George Dickson was a magnificent bloom, Mrs. Edward Mawley, Ulster, and Duchess of Westminster were perhaps the pick; Messrs. D. and W. Croll, Dundee, were second with good blooms also, Frau Karl Druschki was a splendid bloom; third, Messrs. R. Harkness and Co., Hitchin.

Messrs. Alex. Dickson and Sons were again first for twenty-four blooms: Mildred Grant, Beale Brown, and Mrs. John Laing were very good; second, Mr. Barrow, Leicester; third, Messrs. R. Harkness and Co., Hitchin.

Messrs. Alex. Dickson won for twelve Teas or Noisettes. Mrs. Jules Graveraux was a good bloom; second, Messrs. D. and W. Croll, Dundee; third, Messrs. R. Harkness and Co., Hitchin.

Twelve Roses (one variety): First, Messrs. Alex. Dickson and Sons, with splendid Mildred Grant; second, Messrs. Croll, with Mrs. W. J. Grant; third, Messrs. Jarman and Co., Chard, with Mrs. J. Laing.

The best Rose in the show was a bloom of Frau Karl Druschki, from Messrs. D. and W. Croll, Dundee.

Twelve Teas (one variety): First, Messrs. Dickson, with Mrs. Edward Mawley; second, Messrs. Croll, with the same variety; third, Messrs. R. Harkness, with White Maman Cochet.

AMATEURS AND GENTLEMEN'S GARDENERS.

Twenty-four Roses: First, Mr. W. Boyes, Derby, with some good blooms; a good second, the Rev. J. H. Pemberton.

Eighteen Roses: First, Mr. Whittle, Belgrave Avenue, Leicester, with finely-formed blooms; second, Mr. R. Foley Hobbs, Worcester; third, the Rev. J. H. Pemberton.

Twelve Roses: First, Mr. R. Foley Hobbs; second, Mr. Whittle, Leicester; third, Rev. J. H. Pemberton.

Six Roses (one variety): First, Mr. H. V. Machin, Worksop, with White Maman Cochet; second, Mr. Richard Park, Bedale; third, Rev. J. H. Pemberton.

Six Teas: First, Mr. R. Park; second, Mr. R. Foley Hobbs; third, Mr. H. V. Machin.

AMATEURS.

Twelve Roses: First, Mr. W. Upton; Mrs. W. J. Grant was a good bloom; second, Mr. M. Whittle; third, Mr. T. Warner.

Eighteen Roses: First, Mr. M. Whittle, Leicester, with fairly good blooms; second, Mr. W. Upton.

Six Teas (one variety): First, Mr. W. Upton; second, Mr. T. Warner, with Maman Cochet.

Six Teas: First, Mr. W. Upton; second, Mr. M. Whittle, Leicester; third, Mr. T. Warner.

Six Roses: First, Mr. J. Mayes; second, Mr. M. Whittle; third, Mr. W. Upton.

HARDY FLOWERS (OPEN)

Twelve bunches hardy annuals: First, Mr. F. J. Clark, Wistow Hall Gardens; the Shirley Popples were splendid; second, Messrs. Jarman and Co., Chard; third, Mr. H. Hill, Lyston.

Twelve bunches stove or greenhouse flowers: First, Mr. H. Blackway, Dunmore Gardens, Rugby, with a very bright collection.

Twenty-four tuberous Begonias, double blooms: First, Messrs. Blackmore and Langdon; second, Messrs. Jarman and Co., Chard.

Twenty-four tuberous Begonias, single: First, Messrs. Blackmore and Langdon; second, Mr. Charles Burditt, Great Burdon.

Twelve yellow ground Carnations: First, Mr. R. G. Rudd, Cotteridge, with some very good blooms; second, Messrs. Thomson and Co., Birmingham; third, Mr. A. R. Brown, Handsworth.

Twelve Picotees, white ground: First, Messrs. Thomson and Co., Birmingham; second, Mr. A. R. Brown, Handsworth; third, Mr. W. Baraby.

Twelve Carnations, flakes and bizarres: First, Messrs. Thomson and Co., Birmingham, with a very attractive lot; second, Mr. A. R. Brown, Handsworth.

Twelve Carnations (selfs): First, Mr. R. G. Rudd, Cotteridge, with splendid flowers; second, Messrs. Thomson and Co., Birmingham; third, Mr. A. R. Brown.

FRUIT.

Eight dishes of fruit: Mr. J. Goodacre, Elvaston Castle Gardens, was first with good Madresfield Court and Black Hamburg Grapes, brown Turkey Figs, and Harrington Peach as the best. Mr. J. Read, Bretby Park Gardens, was

second with dishes of small fruits; and Mr. Swanwick, Nottingham, was third.

Best collection (eight distinct kinds): First, Mr. Goodacre with Apple Lady Sudeley, Pear Dr. Jules Guyot, Black Hamburg Grape, and a seedling Melon as the best; Mr. J. Read was second. There were no more entries.

Collection of Grapes (six varieties): First, Mr. Goodacre, with very good Madresfield Court, Black Hamburg, and Muscat Hamburg; second, Mr. J. Read, with Madresfield Court as his best. No more entries.

Mr. Goodacre was given second prize for one Pine-apple. He was the only exhibitor, and showed a small Queen Pine.

Two bunches Black Hamburg: First, Mr. Goodacre, with very good well-coloured bunches; second, Mr. J. Swanwick, Nottingham; third, Mr. G. Underwood, Aylestone Park.

Two bunches Muscat of Alexandria: First, Mr. Goodacre, with fairly good bunches; second, Mr. W. Duncan, Bosworth Hall Gardens, Rugby; third, Mr. Swanwick.

Two bunches black Grapes (Black Hamburg excluded): First, Mr. Goodacre, with Muscat Hamburg; second, Mr. W. Duncan; third, Mr. Swanwick.

Two bunches white Grapes (Muscat of Alexandria excluded): First, Mr. W. Chamberlain, Ansty Pastures, with Foster's Seedling; second, Mr. W. Duncan; third, Mr. J. Goodacre.

Six Peaches: First, Mr. H. Blackway, Dunmore Gardens, Rugby, with a good dish (unnamed); second, Mr. Goodacre, with Raymaekers; third, Mr. J. Swanwick.

Six Nectarines: First, Mr. H. Blackway; second, Mr. J. Goodacre; third, Mr. J. Read.

One Melon (green flesh): First, Mr. J. Swanwick, with Sutton's Perfection; second, Mr. F. J. Clark, Wistow Hall Gardens; third, Mr. J. Read.

One Melon (scarlet flesh): First, Mr. F. J. Clark, with Lord Derby; second, Mr. J. Swanwick; third, Mr. W. Duncan.

Dish of Cherries: First, Mr. Goodacre, with Black Circassian. No more entries. Mr. Goodacre was also first for Morellos.

Mr. S. H. Clarke, Aylestone, was first for a dish of Gooseberries.

Six dessert Apples: First, Mr. Goodacre, with Lady Sudeley. Mr. Goodacre was also first for a dish of Plums, showing Kirke's; Mr. J. Read was second.

Mr. John Hudson was first for a dish of Tomatoes.

Collection of vegetables: First, Mr. John Hudson with an excellent lot; a good second, Mr. J. Read; third, Mr. R. Hoe.

TRADE EXHIBITS.

Mr. H. Deverill, Banbury, showed zonal Pelargoniums and hardy flowers in variety.

Mr. W. L. Pattison, Cherry Orchard, Shrewsbury, sent Violas in many pretty varieties, cut Roses with other flowers.

Mr. Charles Holden, Butt Lane, Hinckley, showed Sweet Peas in many good sorts.

Mr. W. B. Child, Acock's Green, Worcestershire, had a very good display of hardy flowers.

Messrs. Harrison and Sons, Leicester, showed some excellent Sweet Peas, hardy flowers and plants in pots.

Messrs. W. and J. Brown, Peterborough and Grantham, showed Pelargoniums, Verbenas, hardy flowers, and many cut blooms of Carnations.

Messrs. Blackmore and Langdon, Twerton Hill Nursery, Bath, had some very fine tuberous Begonia blooms, both double and single.

Mr. F. Bradley, Peterborough, exhibited Carnations made up in various designs, also single blooms of Carnations, Sweet Peas in bunches, &c.

Mr. W. Bentley, Leicester, showed Roses in vases in capital condition, the blooms were fresh and very attractive.

Mr. J. Barron, Leicester, showed Roses in vases.

Mr. Carnall, London Road, Leicester, exhibited a display of floral designs, Ferns, and Palms.

Mr. Charles Warner, Leicester Abbey, had a beautiful lot of Roses in vases.

The Ranelagh Nurseries Company, Leamington, showed the best Asparagus myriocladus.

Mr. E. Harris, Aylestone Park, Leicester, showed Roses.

Mr. Robert Sydenham offered prizes for the best collection of Sweet Peas.

Flowers at the Drill Hall.—A correspondent writes: "It is worthy of note, I think, that at the meeting of the Royal Horticultural Society on Tuesday last not a single group of hardy flowers was staged. I know of no parallel to this in the month of August, when hardy flowers are so plentiful."

Royal Horticultural Society—Exhibition of British-grown fruit and vegetables.—The above society will hold an exhibition of British-grown fruits and vegetables at Chiswick, on September 29, 30, and October 1. The prize schedule is now ready, and contains, in addition to the list of prizes, an authoritative list of dessert and culinary Apples, Pears, and Plums. Special prizes are offered for preserved and bottled fruits. A conference on vegetables will be held on Tuesday, September 29, at 2.30 p.m., Mr. G. Bunyard, V.M.H., in the chair. The following gentlemen have been asked to read papers on—1, "Cooking Vegetables," Dr. Bonavia and Mr. James Hudson, V.M.H.; 2, "Vegetables all the year round for a private family," Mr. W. H. Divers; 3, "Vegetables for Exhibition," Mr. Edwin Beckett; 4, "Vegetables for Market," Mr. W. Poupart. Any contributions to the conference

will be welcomed. Donations towards the prize fund will be gratefully received by the secretary, Royal Horticultural Society, 117, Victoria Street, London, S.W., of whom copies of the schedule can be obtained. Applicants should enclose a stamped envelope ready addressed to themselves.

The Broughton Castle Cottage and Amateur Gardening competition.—We are very pleased to hear that "The Cottage Garden and Amateur Horticultural Competition" for the counties of Oxfordshire, Northamptonshire, and Warwickshire, held on Bank Holiday last at Broughton Castle, was a great success. Lady Algernon Gordon-Lennox must be congratulated on her praiseworthy efforts to promote a healthy and profitable pastime.

Still they come.—America is happy in having a Peony society. We have not reached this dignity yet, but a correspondent unkindly remarks that he proposes to start a society for the promotion of fragrant Onions. It is really too bad of America to encourage these special societies. We are apt to copy the example.

The Lady Margaret Hall Settlement.—We have received the yearly report of this settlement, which is doing good work in co-operation with parochial and other organisations in North Lambeth and Vauxhall. The settlement is in Kennington Road. It has a strip of garden ground at the back, which has proved a source of much comfort and healthful enjoyment to a number of invalid children. The report makes grateful acknowledgment of a brief notice of the settlement's work that appeared last year in THE GARDEN, and that was the means of bringing it a substantial donation. Personal help is also wanted, as may be seen from the following quotation from the report. We are glad to know that our notice was of some avail, and trust that these few words may be a further means of help to this admirable organisation. "The borders are fairly full of flowers that have been given from time to time; but, alas! they are also full of weeds, and none of the residents have the time to clear these latter away. It is hard to believe that there are not many people who would like to devote some time to help us to keep the garden in order, as it is really extraordinarily nice when we remember that it is situated in Lambeth. Any offers of help of this kind will be most joyfully received."

Newbury Horticultural Society.—The good people of Newbury (Berks) were fortunate as regards the weather for their excellent show held on Bank Holiday, and few towns have a better show-ground than Goldwell Park, a lovely spot on rising ground overlooking the town. This society was established in 1848, so that it has held its own, and this year's display was worthy of the town and district. In few towns are flower shows so well supported by the tradesmen and others from the surrounding country and district; it is quite refreshing to see such enthusiasm and competition in the amateurs' and cottagers' classes, which in this section of the show is very keen indeed. For a country show the attendance was very large. I note that last year on a wet day over £200 was taken at the gates. I hope to note the principal features of this show next week, as a few things, such as cut flowers and fruit, were very fine indeed. The president for the year is always the Mayor of Newbury, and he is ably supported by a good committee and hard working secretaries. —W.

Plants in New Zealand.—Mr. Hunt, who gave the interesting lecture on "Horticulture in New Zealand" at the meeting of the Royal Horticultural Society on the 21st ult., writes to correct a sentence which conveys a wrong impression. The lecturer said: "Many of the plants most commonly grown in England are quite at home in New Zealand, and live outdoors through the winter months, except in the southern parts of the South Island, where it is too cold for them. I might add that throughout New Zealand home favourites, such as Pelargoniums, Fuchsias, and Heliotropes, thrive well, and it is only in very severe winters in the south that the frost injures them to such an extent as to cause the death of the plants."

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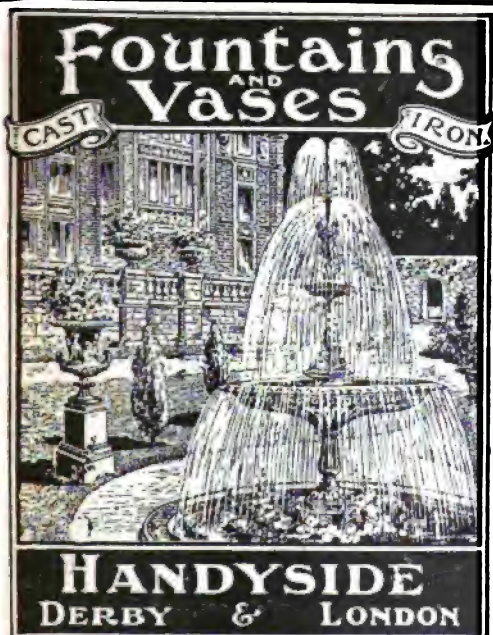
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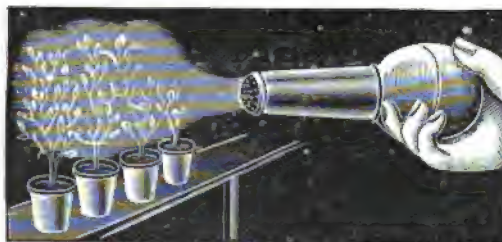
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See RECENT TESTIMONIALS.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 80, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Names of plants.—C. E. B.—*Trachelium caeruleum*.—Mrs. Taylor.—*Rose Safrano*.—E.—The *Lavatera* is *L. Olbia*, good form; the *Linaria* is *L. pallida*; and the *Sedum* is *S. roseum* var. *linifolium*.—H. H. P.—1, *Malva moschata* (the Musk Mallow); 2, *Sedum oppositifolium*; pink-flowered *Sedum* is *S. spurium*; intense violet or Royal purple flower is *Tradescantia virginica atrovirens*; the light blue is *Polemonium Richardsonii*; 7, *Crambe cordifolia*; 8, *Lythrum thyrsiflora*; 9, *Lythrum roseum superbum*; 10, *L. Salicaria*. The scarlet flower is *Monarda didyma*, and the *Veronica* is *V. virginica* var. It is unfortunate that you used marginal stamp waste to affix to the specimens, as this, when in contact with damp moss, is almost immediately released. Most of the numbers were detached and mixed with the packing. Some things are named to colour, the others we were unable to deal with. Small tickets securely attached with numbers are perhaps the best. You can plant all the things named in the autumn.—A. H.—The pink flower is *Erigeron philadelphicus*; the yellow one *Sibthorpia peregina*; the other plant was over. Will you kindly number the specimens in future.

Tulips lifting (Mrs. WEDGWOOD).—These are best if lifted and rested each year, and the work should be taken in hand without delay. As the plants have now lost their leafage, all you have to do, provided they are named species or varieties, will be to lift and keep them separate. You will find large pots a convenience, first placing in the label and then digging up the bulbs. Place these also in the same pot until that sort is finished. Place the pot on one side and so continue till all are lifted. Finally take the bulbs to a shed or outhouse, where removed from the sun the bulbs may be laid out thinly in shallow boxes to finally dry off. For a fortnight they would be quite safe in the pots as lifted in any open shed where no sun could reach the roots. Having spread out the bulbs and dried them well they are ready for cleaning at any convenient

moment when the small may be separated from the large or flowering roots. Beyond this you have merely to keep them dry and well aired till required again in October for planting. In the latter case you should avoid the same spot where the roots came from, as by selecting a fresh place or position and one well tilled a greater success should follow.

Rose leaf spot (Mrs. ARTHUR LONGMAN).—Your Roses are apparently suffering from the above fungus. Your best plan would be to replant the beds this autumn, and discard such varieties as seem specially affected now. A spraying with copper solution would be beneficial if applied at once. The recipe is as follows: carbonate of copper, 1 oz., and carbonate of ammonia, 5 oz.; mix these together in a quart of hot water, and then add 16 gallons of water. Apply this with an Abol syringe at intervals of a few days. Three or four applications should keep the fungus in check.

TRADE NOTE.

GARDEN ORNAMENTS.

In the embellishment of gardens, fountains, vases, and other ornaments play an important part, and as their design, good workmanship, and arrangement are proportionately good or bad, so will the garden lose or gain by their presence. It is



important to have numerous good and various designs in order to be able to make a good selection, as one position and its environment will need quite different garden ornaments to another. By having a number to choose from

selection is made easier, and is likely to prove more satisfactory, therefore we advise a perusal of Messrs. Handyside's list. Fountains and vases may be carved in marble or stone, moulded in terra-cotta and stucco, or cast in iron or bronze. The finest works are those carved in marble by skilled artists, but the very great cost which is involved renders their use rare. Stone, though not so expensive a material as marble, cannot be sculptured well without considerable cost, but fountains and other similar objects are sometimes made at a comparatively low price by unskilled men. Fountains are seldom made of terra-cotta, and vases of this material are easily chipped and broken; they both will crack and crumble away when exposed to wet or frost. The art of casting ornamental objects in metal is an old one, and Messrs. A. Handyside and Co., Limited, Britannia Ironworks, Derby, have one of the oldest foundries for this purpose in England. The use of cast iron or bronze permits a sharpness and delicacy of outline which is impossible in stone or stucco. The fine moulding sand obtained at Derby allows a smoothness of surface not otherwise easily obtainable. Cast iron fountains and vases if occasionally painted are imperishable, and will not crack when exposed to wet or frosty weather. Messrs. Handyside issue no less than seven catalogues, handsomely illustrated, with ornamental designs in ironwork for many and varied uses. Among them may be mentioned gates, railings, vases, pedestals, fountains, porticoes, &c. They are so complete that no one contemplating the erection of ornamental ironwork of any description should fail to obtain them.

CATALOGUES RECEIVED.

Carnations, Picotees, and Auriculas.—Mr. James Douglas, Edenside, Great Bookham.

Japanese Lily Bulbs, Seeds, &c.—Messrs. L. Boehmer and Co., Yokohama, Japan.

Strawberries.—Messrs. George Bunyard and Co., Royal Nurseries, Maidstone.

Bulbs for Early Forcing.—Herd Brothers, Penrith.

General Nursery Stock.—Mr. William Wiseman, the Nurseries, Forres, N.B.

Daffodils and Carnations.—Mr. James Douglas, Edenside, Great Bookham, Surrey.

Alpine Plants.—M. A. Gédre, Luz, Hautes-Pyrénées.

Bulbs.—Messrs. Dobie and Mason, 22, Oak Street, Manchester; B. S. Williams and Son, Upper Holloway, N.; John Peed and Son, West Norwood, S.E.; David W. Thomson, 113, George Street, Edinburgh.

* * The Yearly Subscription to THE GARDEN is: *Inland*, 15s.; *Foreign*, 17s. 6d.



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THE GARDEN

No. 1656.—VOL. LXIV.]

[AUGUST 15, 1903.]

GIFT OF A GARDEN TO THE ROYAL HORTICULTURAL SOCIETY.

IT will interest, we are sure, every reader of *THE GARDEN* to know that Sir Thomas Hanbury, K.C.V.O., whose beautiful garden at La Mortola, Italy, is world-famous, has purchased Oakwood, Wisley, the experimental garden of the late Mr. G. F. Wilson, and presented it to the Royal Horticultural Society. It is a thoughtful gift. The estate is 59½ acres in extent, and, as a description of it on another page shows, a large portion of it is filled with the flowers that the late Mr. Wilson delighted to grow, and he would have desired no better future for a garden in which he spent many years of a useful and interesting life.

The estate is in lovely Surrey woodland. The garden is simply a clearing in Pine and Birch, but the surrounding acres comprise both meadow and arable land, in which the great practical work of the society can go forward with renewed energy and success, and free from the hopeless work of attempting experiments and trials in a London suburb. We are thankful for this great gift. The society has passed through a period of some anxiety to those who ventured to think, though we have never believed that such a catastrophe would occur, that the new Hall would destroy all the great work for which the society was founded. Sir Thomas Hanbury's gift has set those anxieties at rest, and in a new garden in a beautiful country the practical work of the society will be henceforth pursued.

We are sorry the days of the Chiswick Gardens are numbered. A sentimental interest clings to the old place, but of course sentiment must be brushed aside when we contemplate the horticultural needs of the age, though the splendid work of the past fifty years in these historic gardens can never be effaced. There the late Mr. Barron devoted his life to trials of flowers, fruits, and vegetables, rendered in some degrees useless through their present environment. The council of the society has, though hampered with an ugly hall, steadfastly adhered to the desire of acquiring a new garden as quickly as possible; but of course it was not wise to run two expensive schemes at the same time. It is a matter for hearty congratulation that they have been relieved of a financial burden in the future through this unexpected gift

from one whose love for horticulture is shown in his interesting garden at La Mortola. Horticulture is, though unassisted by any State aid, a great and increasing industry. It concerns our national life, and in these acres many of the garden products of the future will be tested, and experiments conducted to improve existing races and create new varieties and hybrids.

We are not aware that the trade growers of this country make merriment over the practical work of the society. It is news to us, and we can only think the utterance of our excellent contemporary the *Gardeners' Chronicle* was made in jest, when it avowed that the trade laughed at the endeavours of the society to have independent trials of flowers and vegetables. These are conducted by practical men, and the results judged by two committees which are composed of honoured names in the world of horticulture. Of course the trials at Chiswick are not wholly satisfactory, but that is the fault of position, and perhaps inadequate space and labour. With nearly sixty acres, much of which is thoroughly good soil, the society will again have its experiments conducted in a way to win the confidence of the many trade growers and amateurs who in the past have been accustomed to send their novelties or selections to Chiswick for the sake of comparison or as a test of their true worth.

The trials are thoroughly independent. No matter who the sender may be, if the subjects lack merit they receive no award, and when a flower or a vegetable does gain the hall-mark of genuine worth it is cherished, not only by the British people, but all over the world. The committees comprise some of the best experts the horticultural world can furnish, and long association with these committees has given them a special knowledge. We hold no brief for the Royal Horticultural Society. Its officers have blundered on many occasions, and will continue to do so; it is the price that is paid for the frailty of human nature, but no one can accuse the present council of not possessing an enthusiastic love for horticulture and the splendid society they represent.

The new "Chiswick" should be in the present century what the old gardens were to the century that has passed, and for enabling the society to continue its grand work we have to thank Sir Thomas Hanbury. We hope the example that has been set will be followed by those who wish to help the council in keeping up the gardens, laying out portions of

it that are now meadow land, and in building the necessary houses. It is the wish of the giver that the gardens should contain collections of trees and shrubs, and to thoroughly reflect many aspects of horticulture, and excellent material is already there as a beginning.

Wisley is, unfortunately, not very accessible, but will probably in the near future, through the means of a light railway along the Portsmouth road, be brought within easy reach. It is bounded by a beautiful common on one side, and Lord Lovelace's estate on the other, so that whatever happens it is safe from the inroads of the town.

Though Weybridge is not the nearest station, it is the most quickly reached from Waterloo. There are plenty of cabs at the station, and the drive of six miles is through a part of the loveliest of Surrey scenery. Ripley is about three miles away, but Weybridge was the station always recommended by the late Mr. Wilson.

All well-wishers of the society will rejoice that its great work has received encouragement so practical and stimulating, and the Council and Fellows are to be congratulated that next year not only will it possess a new Hall—which we may remind those who have not subscribed that there is nothing to prevent them so doing—but a beautiful garden filled with trees, shrubs, and flowers, and, in part, fruit trees also. It must be adapted to present needs, and probably those who have desired a garden instead of a hall will be asked to subscribe for its upkeep, but of that we shall give details we hope next week, with a rough plan showing its position more clearly than can be expressed in words.

EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London.

CAMPANULA VIDALI.

Mr. Dixon sends from Astle Hall, Chelford, Cheshire, flowers of this interesting *Campanula*. With the following note: "I have it flowering in the greenhouse, where it does very well, some plants

having seven or eight stems of flowers. I tried it some years ago on the rockwork, and although I flowered it there it was very uncertain, and would not stand a hard winter. It is quite a show in my greenhouse now. I have a good many plants all in full flower." The flowers sent show how well the plant is grown by our correspondent.

FLOWERS FROM CORNWALL.

"W. D. P." sends from Cornwall several interesting flowers, the most important being a bunch of

SINGLE MULE PINKS

of a wonderful crimson colour, almost blood red, and so rich and beautiful that we hope the sender will keep this selection pure and constant. Our correspondent says they are "very free flowering and bright border plants. I send two varieties. I had the original plants flowering for three seasons. They strike freely, but do not seed."

PRIMULA CAPITATA

was very fine, the flower-heads large, and on strong stems; and also sent was

INULA ROYLEANA.

"A new one. It has a fine leaf and a large flower, but, like some other Inulas, it is rather coarse." There are many half-wild places in which this noble orange flower can be used. It is welcome for its bold growth and fine leaf and flower.

ANNUAL SCABIOUS.

Mr. Verrald, Sunnyside, College Road, Harrow, sends a delightful gathering of Scabious flowers in rich colourings, warm crimsons, deep purples, and many other shades, with the following letter: "I hope you will accept a few Scabious flowers grown

by a gardening student. They have been much admired for their size and colouring, and were grown in poor garden soil which has never been manured in any way. I sowed the seed last August in the open (they were only 1d. packets), and planted out the seedlings in November, pinching them at the same time. In June each seedling was a large bush covered with hundreds of buds. I have been cutting since then and shall until the frost comes. I hope Scabious are not too commonplace for the Editor's table, but I see that all sorts of plants may be sent. I am only a student at present, but THE GARDEN is my favourite paper and always will be, being very helpful and instructive; it is neither 'amateurish' nor too technical."

THE NEW GARDEN OF THE ROYAL HORTICULTURAL SOCIETY.—OAKWOOD, WISLEY, SURREY.

SPLENDID GIFT FROM SIR THOMAS HANBURY, K.C.V.O.

ABOUT twenty-three years ago the late Mr. G. F. Wilson established at Wisley, which is approached by a drive of six miles from Weybridge, through beautiful scenery of Pine, hill, and meadow, what he called an "experimental" garden. That garden is now the property, through the munificence of Sir Thomas Hanbury, of the Royal Horticultural Society, which the late possessor so warmly supported and instituted, it may be interesting to recall, the guinea fellowship. Mr. Wilson

called his garden Oakwood; it is a clearing in woodland, and, as we mention in our leading article, comprises 59½ acres, with the cottage on the hilltop looking towards the blue distance of Pine woods. The garden is undulating, and a home of flowers planted in the positions they love best—here the Hellebore clothing the sides of a damp ditch, there Mr. Wilson's famous Lilies sheltered by surrounding shrubs from the winds of spring.

The story of the year is unfolded as the seasons pass by. When the Snowdrop ventures forth its flowers there are already signs of the awakening of Primrose, Auricula, Hepatica, and the early blossoms of the year to take their part with the last of the Hellebores in making groups of colour in the garden.

A garden of this nature is an object-lesson to those who wish to tread the fragrant paths of horticulture. The plants were studied individually, so that they enjoyed similar conditions to those surrounding their native haunts, and this is surely the keynote to success in gardening—the flower and the fruit must be studied.

When we last visited Oakwood, to spend one of those happy days with Mr. Wilson, we well remember the Japanese Iris was in flower, and probably in this garden alone is this Iris grown in a way so delightful. Mr. Wilson possessed thousands of plants and as many seedlings; they were reminiscent of the Iris-lined streams in the gardens of Japan. Two ditches wind about in this part. The first one is planted with Irises, and when the flowers are in beauty it is a quaint scene. The flowers



SUMMER TIME AT OAKWOOD, WISLEY, NOW THE NEW GARDEN OF THE ROYAL HORTICULTURAL SOCIETY.

peer up above the grassy leafage and bespatter the garden with a mosaic colouring, here a patch of purple, there white, and near to it perhaps a colouring of warm rose. There is much water in the ditches in winter, but this, of course, the Japanese Iris enjoys.

The charm of a garden is not in its blaze of colour at one season, but a succession of flowers to girdle the year. When the Japanese Irises are over, Harebells and other plants flower on the banks. One ditch is wider than the other, and in this lush retreat the flowers have become in a sense naturalised. It may interest our readers to know that Mr. Wilson used to save the Iris seeds in this garden, and sow them during the last week in March, keeping them in the pods until that time.

By the lake side there are Irises, too, and it is almost impossible to go to one spot in this garden of many plants and declare that to be the most picturesque and interesting. Wherever one turns, brushing through the Rhododendrons or treading in shady grass paths lined with *Linnaea borealis*, there is something to interest. On pond and ditch sides Roses pour forth their rich fragrance, Crimson Ramblers tumbling about in wild profusion, and one pond is covered with the yellow *Villarsia* with a fringing of *Loose-strife*. Hybrid Water Lilies float on the surface of the little lake, with *Gunnera manicata* and *G. scabra* on the sides, and in one corner is a dense group of *Saxifraga peltata*.

Shade and sunshine gladden the garden. The sun scores the grassy paths and glints across cool walks of hardy Ferns. One little path, losing itself amidst the luxuriant shrubs, is covered with the strong white *Pratia angulata*, a mossy carpet as pretty as the little *Arenaria balearica* that stains many a rock surface with green.

We know not when Oakwood is in its brightest dress. It is a place to revel in when the blue Primroses raised by the late Mr. Wilson make bits of colour against mossy stones, and the *Auriculas* saturate the air with their scent; but the time when the Japanese Irises are in full beauty, with the opening of the Lilies, is to us a season of perhaps greatest enjoyment. Recently several standards of the old garden Rose *Aimee Vibert* were bent with their fragrant burden, and a Crimson Rambler had flung itself over an arch and mounted into a tree near. In Gentian time it is worth a journey to see the *Gentianella* (*G. acaulis*), a carpet of blue. There were—and we understand that the garden has been disturbed very little since Mr. Wilson's death—120 yards, 50 yards of plants resulting from seed collected by Mr. Wilson's son, Mr. Scott Wilson, on the Alps. Of course, the *Gentianella* we know best is the deep blue, but the plant varies from seed. Some forms are quite approaching to white. *G. ornata*, *G. septemfida*, and *G. asclepiadea* are quite a success.

The first Japanese Rose hedge planted in this country is at Oakwood, and a few years ago Mr. Wilson made a new feature on the hillside near the lake by planting there all the finer shrubs, with groups of Lilies sheltering between them. This as the years go on will mature and prove a Lily and shrub garden of rare charm.

Oakwood at present is a woodland garden. Heaths of many kinds make thick carpets of growth, and, with Camellias and Azaleas, revel in the vegetable soil. A strong bush of Bog Myrtle distils its sweetness when brushed against, and in a moist and shady corner *Shortia* and *Schizocodon* are quite happy, plants that are a sore trial to those who do not quite know the treatment to give them.

Adiantum pedatum was spreading freely in the shade, and *Erythroniums* too, but one of the great features of the place is the Lily.

The late Mr. Wilson was one of the first to bring this beautiful family into prominence. For about twenty years Lilies have been grown at Oakwood, and we have learnt many lessons there of the way to manage individual kinds. This enthusiasm deepened with years, and we well remember Mr. Wilson once pointing out to us with pride *Lilium szovitsianum* in flower under an Apple tree from seed sown there. In the same colony were seedlings of *L. Martagon*, *L. dalmaticum*, and *L. Catansei*. *L. Humboldtii* was growing out of a bed carpeted with *Linnaea*, and in other places *L. pardalinum*, *L. longiflorum*, *L. giganteum* among the Rhododendrons, and *L. auratum* were noteworthy. *L. auratum* was in a clearing in the wood, and groups of it had been undisturbed for ten years. So much could be written of the garden and its plants that it is unsatisfactory to close the story, knowing that many things have not been mentioned in these necessarily short notes.

It is a matter of thankfulness that it is preserved for ever for the Royal Horticultural Society to pursue sound horticultural work on the broadest lines.

Sir Trevor Lawrence, Bart., president of the society, writes as follows to the *Times* of Tuesday last:—

"I am authorised by Sir Thomas Hanbury, K.C.V.O., whose garden at La Mortola has a world-wide fame, to ask you to let me make public through your columns what I can only describe as a signal mark of characteristic generosity. Sir Thomas has purchased for presentation to this society the estate and garden of the late Mr. G. F. Wilson, F.R.S., at Wisley, near Woking.

"Mr. Wilson's garden has long been celebrated, and the skill and success with which hardy plants have been cultivated there for many years show how suitable it is for the purposes for which it has been selected by Sir Thomas Hanbury. The total area of the estate is sixty acres, part of which is used for agricultural purposes. There is a small residence, farmhouse, and other suitable buildings on it. The garden has the variety of soil and aspect and the unfailing water supply which are essential for the purposes of the Royal Horticultural Society, which will have but little to do but provide the necessary plant houses.

"The Fellows of the society owe a heavy debt of gratitude to Sir Thomas Hanbury for his



SIR THOMAS HANBURY, K.C.V.O., OF LA MORTOLA, ITALY.

thoughtful and generous gift. All lovers of gardens will gladly know that Mr. Wilson's garden has been rescued from the fate which often overtakes such pleasaunces when their creator passes away.

"Now that the Royal Horticultural Society has received this gift, there is every reason to hope that its centennial year, 1904, will see it provided with a new garden, as well as, thanks in a large measure to Baron Henry Schröder, with a new metropolitan hall and offices."

NOTES OF THE WEEK.

August 18.—Royal Horticultural Society's Committee meet.

The Loganberry.—Although Messrs. Veitch and Sons have secured for this remarkable hybrid, if such it really is, the highest honour the fruit committee of the Royal Horticultural Society can bestow, viz., a first-class certificate, yet it is to be hoped that we shall often see fruits of it placed before the committee, as it is not yet known whether they have been at their very best or with the highest flavour. Those staged by Messrs. Veitch from Langley were certainly very fine. One example seen on the 21st ult. showed that such fruits must not be sent by post. But as this Loganberry is a most valuable addition to our hardy fruits, and should in time be found as common as the Raspberry, and in every garden, is it too much to ask if Mr. Logan of the United States,

the reputed raiser, does not merit some recognition at the hands of the Royal Horticultural Society? Would not that body do itself honour in inviting Judge Logan to accept at its hands a Hogg medal?—A. D.

Lavatera Olbia.—This makes such a fine bush on a sunny bank that it deserves to be more generally grown.—W.

The Floral and Fruit Committees' Cricket Match (Royal Horticultural Society) will not take place. It was to have been played at Holland Park, but we think a Saturday was an unfortunate day to fix.

Cactus viviparus.—This is one of the first of the hardy Cacti to flower here, and deserves special note on account of its colour being an uncommon one amongst this class of plants, its hardness and rarity. The flower is of a most intense purple-crimson, and of a good size. It is essentially a rock plant on account of its dwarfness and requirements. In common with the hardy Opuntias and other Cacti, *C. viviparus* will succeed well in a well-drained soil consisting of

of some advantage to traders. Fruit growers could, for example, join together and send by the railways larger quantities of produce at lower rates than for smaller quantities. If anyone could show his board that any railway company in this country was granting a preference to the foreigner over any other trader, his board would take the matter up and do everything they could to see that that illegal act no longer took place. There was nothing like competition to stimulate railway companies, and if the farmers and other traders could bring about competition by motor-car, for instance, they would soon have reduced railway rates. His desire as president of the Board of Agriculture was to help them as much as possible in that direction.

A note from Lechlade, Gloucester. In answer to an enquiry in THE GARDEN about *Ipomœa cœrulea*, I planted it two years ago in the open ground. It grew to a great size, but did not flower well. This year I am growing it in Seakale pots against the west side of my house. It has flowered a little, and is now covered with buds.

not do anywhere. I have tried peat and loam, in sun and in shade, wet places and dry; I believe they do not like hard water. The Roses I planted last autumn have not done well, though the older plants flowered magnificently in July. I pruned, fortunately, very late this year. To those who have not tried it I can recommend *Viburnum macrocephalum*. I grow it in a tub on a terrace, and I find it is far more decorative than any.—R. D.

A bowl of Roses.—How seldom are flowers satisfactorily arranged in bowls, more particularly when Roses are used! An instance of good arrangement in a bowl came recently under my notice, and this in connexion with a very pleasing function. The occasion was the silver wedding of Mr. and Mrs. William Sydenham, of Bolehall House, Tamworth, Staffs, well known to the horticultural world, owing to Mr. Sydenham's efforts in improving the Pansy and early-flowering Chrysanthemums. A large silver bowl, some 12 inches to 15 inches in diameter, standing on an Ebony pedestal, was lightly filled with Roses.

Those for the centre were cut with very long stems, in some instances quite 2 feet to 2½ feet. Long sprays of foliage were inserted here and there, and no other foliage whatever was used. Most of the Roses were cut as partially opened buds, and the wisdom of this selection was seen as the day advanced. Buds of the Teas and Hybrid Teas were made to overhang the sides of the bowl, and it was here that charming sprays of *Cecile Brunner* and *Perle d'Or* were effectively displayed. The foliage was retained on the upper portion of the stems of each variety, so that as it was adjusted in position all bare stems were covered up, and a pleasing finish given to the whole arrangement. This is a class which the National Rose Society might make more of than they do at present.—D. B. C.

The fly plague.—The presence of flies in the house is a reproach. It is a falling away from a high hygienic standard, for the fly is a pestilential fellow. It must be admitted, however, that it is very difficult to keep habitable places free from flies. Poisonous fly-papers are unsightly, and glutinous cords and traps are not very pleasant accessories in the household. Yet it is a matter not only of comfort, but also of health, that the fly should be excluded. The fly may easily be a pathogenic agent, owing to the fact of its choice of environment being oftentimes of the most disgusting character. When a fly walks across a suitable culture medium it leaves infection behind it, as shown in the colonies of organisms which develop on the points with which the insect's legs

have been in contact. The fly, therefore, should be driven out of our haunts. Preventive measures are best, and at this season of the year, when flies are beginning to infest our houses, it is an excellent precaution to cover the window openings with wire gauze. It is a curious fact that flies will not pass through netting, even though the meshes be quite large, unless there be a source of light as from a window behind it. Thus in rooms with windows only on one side a net over the window will absolutely keep the flies out, although the meshes of the net may be 1 inch apart. It is surprising that in railway carriages a sliding frame fitted with wire gauze is not provided as well as the window. Such a sliding screen could be used when ventilation is wanted, while dust and rain would be excluded at the same time. The gauze frame would certainly keep flies out. We have seen carriages on certain of the Continental lines provided with a gauze screen of this kind. There is no reason why a similar arrangement should not be fitted to the ordinary window sash. This would do much to mitigate the great nuisance of flies in the house.—*The Lancet*.



NYMPHÆA GROUP IN THE NEW GARDEN OF THE ROYAL HORTICULTURAL SOCIETY.

loam, sand, and brick dust in equal parts. It is as well to give a light top-dressing of silver sand also to prevent the plant (which is only about 3 inches to 4 inches high) being splashed by mud in heavy rains. These conditions, with a sunny position on rockwork, will suit this lovely plant.—J. Wood, *Plant Club, Kirkstall*.

Fruit failure in Ireland.—Mr. Hartland writes: "I have a good many Apples planted at Ardcairn, but no fruit on any except Worcester Pearmain."

Fruit growers and railway rates. The Earl of Onslow, addressing a meeting in the Town Hall, Maidstone, in connexion with the National Fruit Growers' Federation, last week, expressed the hope that all the farmers of England would follow the example of the Fruit Growers' Federation and combine to promote their common interests. Regarding railway rates it was true the companies had their shareholders to think of, and that they were under obligations to Parliament, but at the same time their business was not to repel traffic but to attract it. Various suggestions had recently been made by the companies, which might prove

The colour is a really beautiful blue. I have seen it in Ceylon covering the whole side of a house. My garden soil is an oolitic clay, the most unpleasant gardening soil I have ever seen. The position is on the southern slope of the Cotswolds, 400 feet above sea level. Lilies promise well. *L. auratum* is about 8 feet high. A clump of *L. superbum* now in flower is magnificent; it is in peat by a small pond. The tallest is 10 feet high. *L. pardalinum*, in a similar place, I cannot get to grow. *L. Browni*, after flowering well for two years, is a failure, but *L. testaceum* always does well. The foliage of *L. Batemanniae* turns yellow before the flowers come out. I think its colour beautiful. A large clump of *L. chalcidonicum* has gone off just in the same way that *candidum* often does. The latter this year in the village gardens is splendid; mine are very bad. *L. Martagon album* was very good, also one bulb of *L. colchicum* (out of eight) had a splendid head; the rest have not yet appeared. These were planted two years ago. Of Irises none have flowered well this year. *I. aurea*, *I. Monnierii*, *I. monspur*, and *I. ochroleuca* had no flowers. *I. Kämpferi* will

Strawberry Loxford Hall.—This does not appear to be much grown. We are asked by gardeners its name when they see it doing so well in our garden. I am quite aware that Strawberries are much better in some soils than they are in others. In proof of this since I have been here I have grown most of the leading sorts, and I believe I should not suffer if I confined myself to this, Royal Sovereign, and President, though I grow several others. But the three above named are most relished in our garden, Royal Sovereign being first, President following very closely, and Loxford giving a fine late supply. This year we gathered fruit for five weeks continuously from these three sorts growing side by side in the open garden. Loxford crops enormously, and when thinned the fruit is large, conical, and handsome, being bright crimson, and with a very white flesh of excellent flavour—not too sweet. Added to this the fruit travels well. With us two year old plants crop best. The foliage is rather large and long, and needs plenty of room.—J. CROOK, Chard.

Eranthemum tuberculatum.—This species usually flowers more freely towards the end of the summer and in early autumn than at any other time, but it has now been for some weeks in bloom in the T range at Kew. It differs greatly from the species commonly met with, such as *E. pulchellum*, whose flowers are collected in a terminal cone-like head, for in this they are scattered over the shoots; whereas many of the *Eranthemums* are of upright growth and sparsely branched; this forms quite a little bush, with its slender branches clothed with small ovate leaves. The flowers are pure white, over 1 inch across, and in general appearance suggest those of *Bouvardia Humboldtii corymbiflora*. As it will bloom freely in pots only 5 inches or 6 inches in diameter it is very useful for small houses. This *Eranthemum* was introduced from New Caledonia about forty years ago, but never became popular, and is now rarely seen. Given a structure maintained at a stove temperature it is both easy to propagate and to cultivate.—H. P.

Tropaeolum speciosum.—Mr. H. J. Veitch's efforts to establish this richly-coloured *Tropaeolum* in quantity by the side of the north entrance to his house at East Burnham Park has been singularly successful, the plants being now so much at home that growths come up freely even among other climbers. In previous years the support furnished has been simply tall *Pea* sticks, but these did not prevent the shoots from running in among the shrubs behind and thus losing much of their beauty. This spring the sticks were coated with fish netting, and round this the leaves twine themselves. Certainly this *Tropaeolum* will attach itself to walls, fences, or other objects, but it seems to be peculiarly attached to such soft material as netting. The result as seen now is a fine face of rich colour, which for a long season remains an object of exceeding beauty.—A. D.

Tibouchina heteromalla.—Everyone knows the universally admired *Tibouchina semidecandra* syn. *Tibouchina macrantha*, *Lasiandra macrantha*, and *Pleroma macrantha*, but the species at the head of this note is rarely seen, though it forms a handsome specimen. True, it is not equal to *T. macrantha*, but then this last is in every way of exceptional beauty. A fine specimen of *T. heteromalla* planted out in the Mexican portion of the temperate house at Kew is now flowering freely. It forms a bold growing bush, with sturdy stems clothed with elongated heart-shaped leaves, covered with silky tomentum, which is more pronounced on the under than the upper sides. The flowers, which are borne in a many flowered panicle, are violet-purple, and about 2 inches across. It is more fitted for planting out, as at Kew, than for culture in pots. This species is a native of Brazil, from whence it was introduced in 1819.—T.

Notospartium Carmichaeliae.—This, popularly known as the Pink Broom of New Zealand, is both pretty and uncommon, while it is also hardier than most natives of those islands; in fact, in the neighbourhood of London it is rarely injured in winter. As indicated by its popular name, it bears a close resemblance to a Broom,

having the same green leafless branches, which are in the case of the *Notospartium* gracefully arranged. The flowers are small, *Pea*-shaped, of a bright rosy pink colour, and borne usually in July, in dense crowded clusters towards the points of the shoots. Not only are they pretty in a mass, but individually, from their delicate markings, they will repay close investigation. From the drooping habit of the plant it is perhaps seen to the best advantage on bold rockwork, where the branches have space to develop. In its native country it is said to reach a height of 20 feet, but here it can only be regarded as a shrub. It is interesting as being one of the few members of the order Leguminosae indigenous to New Zealand, for, strange to say, though so numerous in Australia, very few occur on these neighbouring isles.—T.

Flowers for butterflies.—I have read with great interest your correspondents' notes on plants attractive to butterflies, but I think Mr. Wolley Dod mentioned last week the best plant, viz., *Sedum spectabile*, for I may say, with miles of flowers, none seem to be so attractive in its season to both bees and butterflies. An edging of *Sedum spectabile* is a boundary border fully 200 yards long in one of our kitchen gardens, and is a veritable picture each year during August and September, more from the myriads of visiting butterflies than from the flowers themselves. Elsewhere, whether in masses, lines, or single plants, it is the same, butterflies everywhere. Like Mr. Wolley Dod, I was also surprised at the omission of this plant from the list.—J. R., *The Gardens, Tan-y-bwlch, North Wales.*

Senecio Clivorum.—At the Drill Hall on Tuesday last were to be seen some finely developed examples of this bold Chinese plant. Far too bold, vigorous, or, as some would say, coarse growing for the ordinary border, it is yet an ideal plant in certain positions in the garden. And it is here that the value of any plants, large or small, depends, viz., that of being rightly placed; indeed, the above plant would be as unsuitable in the ordinary border as any of the more minute alpine, and this is the extreme in both directions. But as there are uses for the more dwarf alpine, so too is there a place for the boldest of perennials. Some of the places in which this *Senecio* may be seen to advantage are the wild garden, the river-side, or waterside garden. Where boldness on the margin of lake, or pond, or stream should be a feature, and again in isolated positions on the lawn or in the large shrubbery border, in any or all of these this plant would create a feature not easily or readily imitated. The roundly peltate leaves are about 20 inches in diameter, the many forked inflorescence attaining to some 4 feet high. The flower-heads are numerous and large, the colour being rich orange. The plant is easily grown, quick to develop, and quite hardy.—E. H. JENKINS.

The Scientific Committee of the Royal Horticultural Society.—An "Admirer" of the work of the scientific committee deploras our unkind remarks about this body in *THE GARDEN* of the 1st inst. We are not aware that the remarks were "unkind." All we intended to convey was that this committee does not adequately represent the scientific side of the society. It has no influence on horticultural science, and simply sits, as its reports show, to answer commonplace questions. Very few of the members attend, though the list contains over seventy names, with Sir Joseph Hooker as the chairman. We are only sorry that such valuable material is so wasted.

A new Peach (Libra).—The fruit committee of the Royal Horticultural Society, at their meeting on the 4th inst., gave an award of merit to a very fine Peach sent by Mr. William Taylor, of the Osborn Nursery, Hampton, under the name of *Libra*, and though finer fruits were exhibited from the same tree on the 21st ult., those sent on this occasion showed its value as a very early variety. It is a seedling, and is remarkable for its growth in a cool house, as the fruit staged only had partial shelter in severe weather. This will prove its value for first dishes from open walls given slight protection in severe weather. The

fruits are large, very juicy, and of a beautiful colour, only slightly coloured on the sunny side. They somewhat resemble a fine *Noblesse* with its melting flesh. I think its parents must have been very early varieties. Early *Alexandra* was named, but it is larger, and if a better forer it will be a most valuable introduction and well worth growing, as large Peaches are always liked, and if early they are invaluable. I fear in most gardens early Peaches are very scarce, as in our case we not only lost the crop, but trees also, owing to the cold last May.—G. WYTHES.

Irish Gardeners' Association and Benevolent Society, Dublin.—The following is a copy of an address received by His Majesty the King at Dublin Castle on the 22nd ult.: "To His Majesty Edward VII., King of Great Britain and Ireland, Emperor of India, &c.—May it please your Majesty, we, on behalf of the Irish Gardeners' Association and Benevolent Society, beg to tender to Your Most Gracious Majesty, and to your illustrious Consort the Queen, our most loyal and hearty welcome on this your first visit to Ireland since your Majesties' accession to the Throne. Representing, as we do, a large body of your loyal subjects, who appreciate the great interest your Majesty takes in the welfare of those engaged in horticultural pursuits, and in honouring with your Royal patronage the Gardeners' Royal Benevolent Institution and the Gardeners' Royal Orphan Fund of England, whose objects are of a similar character to our own, we feel that the present is a fitting opportunity to express our sincere gratitude and profound respect on this occasion of your visit to Dublin, and we humbly hope and pray that it may be your Majesty's gracious pleasure at some future date to honour with your illustrious patronage the Irish Gardener's Association and Benevolent Society.—Signed, on behalf of the society, F. W. Burbidge, M.A., M.R.I.A., V.M.H., president; John J. Egan, J.P., James Cavanagh, F. W. Moore, A.L.S., M.R.I.A., V.M.H., vice-presidents; W. S. Hall, honorary secretary."

Chinese conifers.—The *Journal of Botany* for August contains an enumeration by Dr. Masters of the conifers collected in various parts of South-Western and of Central China by Mr. E. H. Wilson on behalf of Messrs. James Veitch and Sons. Dr. Masters writes: "Seeds of most of the species were gathered, and the seedling plants are in cultivation in Messrs. Veitch's nurseries. Mr. Wilson's specimens are excellent, but were mostly collected in the districts previously visited by Dr. Henry, the Abbé David, and others, as enumerated in the *Journal of the Linnean Society*, vol. xxvi., page 540 (1902). Nevertheless, there are few novelties among them, and as the specimens have been distributed in several of the herbaria of this and other countries, a brief enumeration may be desirable."

KEW NOTES.

INTERESTING PLANTS IN FLOWER.

Temperate House.

BEGONIA CARMINATA, *Calceolaria integrifolia*, *Cassia laevigata*, *Erythrina Humel*, *Kreysigia multiflora*, *Lilium Henryi*, *Lonicera etrusca*, *Muschia Wallastoni*, *Myrtus Luma*, *Statice pectinata*, *Tibouchina heteromalla*, and *T. macrantha*.

Water Lily House.

Solanum pensile.

Greenhouse.

Begonia coccinea, B. President Carnot, B. tuberous-rooted, *Bredia hirsuta*, *Campanula Vidalli*, *Carnations* in variety, *Datura Knightii*, *D. suaveolens*, *Francia ramosa*, *Lobelia tenuior*, and many other things.

Orchid Houses.

Angræcum chailluanum, *A. eichlerianum*, *Bulbophyllum grandiflorum*, *Cypripedium Parishii*, *Dendrobium chrysanthum*, *Epidendrum floribundum*, *E. radiatum*, *Gomeza planifolia*, *Gongora*

galeata, *Hemaria dawsoneana*, *Listrostachys forcipata*, *Luisia brachystachys*, *Maedevalia maculata*, *M. reihenbachiana*, *Megacolinum triste*, *Miltoia castanea*, *Oberonia ensiformis*, *Odontoglossum bitionense*, *O. Uro-skinnei*, *Oncidium crispum*, *O. Gardneri*, *O. incurvum*, *O. ramosum*, *Ornithidium bicolor*, *Pachystoma thompsoniana*, *Polystachya lawrenceana*, *Rostrepia antennifera*, *Rhynchosyris retusa*, *Sarcanthus pallidus*, *Sobralia macrantha*, and *S. xanthina*.

T Range.

Allamanda violacea, *Anigozanthos coccinea*, *Aristolochia gigas* var. *Sturtevantii*, *Billbergia meiziana*, *Costus speciosus*, *Cotyledon teretifolia*, *Crossandra undulata*, *Echinocactus micro-spermus*, *Emilia amplexicaulis*, *Hoya imperialis*, *Ixora* in variety, *Ixora coccinea* var. *Fraseri*, *I. macrothyrsa*, *Kempferia Kirkii*, *Kleinia Galpini*, *Ruellia amena*, *Stigmaphyllon ciliatum*, and *Tillandsia duvaliana*.

Rock Garden and Herbaceous Borders.

Acanthus spinosus, *Campanula carpatica*, *Echinacea purpurea*, *Erigeron alpinum*, *Eryngium* in variety, *Inula macrophylla*, *Lathyrus latifolius*, *Lavatera trimestris*, *Liatris spicata*, *Lobelia sessilifolia*, *Melilotus officinalis*, *Morina longifolia*, *Oenothera missouriensis*, *Pentstemon* in variety, *Platycodon grandiflorum*, *Polygonum amplexicaule*, *Salvia* in variety, *Senecio saracensis*, *Spigelia marilandica*, *Swertia perennis*, *Veronica incana*, *V. spicata*, *V. subcaerulea*, *V. virginica*, and many other things.

Arboretum.

Buddleia variabilis, *Ceanothus* in variety, *Clematis* (various), *Indigofera gerardiana*, *Lycium pallidum*, *Olearia Haastii*, and various *Spiræas*.

THE ROSE GARDEN.

JOTTINGS ABOUT ROSES.

ROSA MACRANTHA LUCY.—Quite a number of new forms of *Rosa macrantha* have made their appearance lately, and when at Cheshunt I was especially pleased with the semi-double white variety named *Lady White*, sent out by Messrs. Turner. *Lady Sarah Wilson*, a semi-double blush variety, also sent out by Messrs. Turner, is pretty, but not equal in beauty, in my opinion, to the variety which forms the subject of this note. It is a cross between *macrantha* and that old favourite *Charles Lawson*, and the vivid single pink flowers, which measure over 6 inches across, are extremely beautiful. This was one of the good things which I noticed in Messrs. Veitch's Coombe Wood Nursery at the end of June, and it is one that will no doubt become popular as soon as it is distributed. I should much like to see a bright crimson *macrantha*, and this might possibly be obtained by crossing the type with, say, *Grüss an Teplitz*. What a glorious hedge a selection of these new *macrantha* seedlings will make.

Evils of grafting.—The trouble is that nearly all the plants sent from nurseries are budded, and sooner or later up comes the insidious Briar and starts to gain the mastery. There is really no excuse for grafting such free-growing *Roses* as these, and, as with the *Penzance* Briars, they should always be on their own roots. Fortunately, they strike easily, and, if plants on their own roots are not to be obtained from the trade, one can at least raise a stock of plants by this method; for unless most of these free-growing garden *Roses* are grown on their own roots, half the summer will be taken up in looking over and destroying Briar suckers. The same remarks apply to the *wichuraiana* hybrids. As everyone knows, these *Roses* grow into perfect mound-shaped thickets, and it is a physical impossibility to eradicate Briar suckers from amongst the dense thorny mass of prostrate or semi-prostrate growths. And while on the subject of *wichuraiana* *Roses* I should like to enquire as to whether any readers of

THE GARDEN have seen Messrs. Barbier's newest set of hybrids—*Adelaide Moullé*, *Edmund Roust*, and *Elisa Robichon*—and, if so, would they be kind enough to say whether they are improvements on those we now possess? I have just ordered two new American hybrids under the names of *Sweetheart* and *Débutante*, raised by Mr. H. Walsh of Massachusetts. The former is stated to be very hardy and of great vigour—a cross between *wichuraiana* and *Bridesmaid*. The flowers are borne in clusters, and are perfectly double and fragrant, each individual bloom being 2½ inches in diameter. *Débutante* is the result of crossing *wichuraiana* with *Baroness Rothschild*, and is a vigorous climber, bearing large clusters of fragrant double pink flowers.

Preserving poles and stakes.—I am often asked as to what is the best preservative for the wooden poles and stakes so frequently used to support *Roses* and other climbers. Some people advocate dipping that part of the wood which is placed in the ground with tar, but for this purpose I always use a much cleaner and better preparation known as *Carbolineum avenarius*. This is manufactured by Messrs. Peters, Bartsch and Co. of Derby, and looks like a dull coloured varnish. It should be applied hot to that part of the wood which will come into actual contact with the soil, and about 1 foot of the wood above the surface of the soil should also be treated, in just the same way as one would apply varnish. Care should be taken not to get it on the hands or clothes, as it is a rather corrosive preparation. As with tar, care must also be taken to keep it away from the roots of the climbers, but if the poles or stakes are treated with this preparation about a couple of months before they are required, it will have thoroughly soaked into the wood, and the roots will then take no harm. I have used this preparation now for some years, and can recommend it with the greatest confidence. Mr. George Paul has promised me to give it a trial, and if any readers of THE GARDEN wish for further information on this subject I shall be happy to furnish them with it.

Mr. Molyneux and new Roses.—Mr. H. E. Molyneux's notes on new *Roses* are always of great interest, and many rosarians who are unable to visit either shows or nurseries look to his trite and pertinent remarks for guidance. There is one splendid garden *Rose* which appears to have escaped even his "eagle" eye. I refer to

H.T. La Tosca, which came to me from Cheshunt with an excellent character, and I am quite able to endorse the good opinions which Mr. G. Paul has formed about it. Not only is it a splendid grower, but it has proved very hardy, and recovered from the spring frosts before the majority of *Roses*. The pale green wood is practically thornless, and in this respect it is quite distinct from either *Vicountess Folkestone* or *Caroline Testout*, between which it is really intermediate. The blooms are produced in good sized clusters on erect stalks; they are of good form, fragrant, and, though not full, stand rain well. The colouring varies from pale rose to pale salmon-white, sometimes blush white. It is the result of a cross between *Josephine Marot* and *Lucile*.

Golden yellow Roses.—I am afraid those who plant *Perle von Godesberg*—the much-vaunted sport from *Kaiserin Augusta Victoria*—in the hope of getting a mass of golden yellow blossom will be decidedly disappointed. I saw a batch of some twenty plants in the open ground the other day, and I also noticed several flowers at *Wolverhampton*, but no golden yellow was discernible. With Mr. Molyneux's permission, I will, therefore, amend his description and say "occasionally comes a fine golden yellow." Two *Roses* which, to my mind, much more nearly approach this colour description, are *Billiard* and *Barré* and *Georges Schwartz*. Unfortunately, neither are satisfactory. The former was crippled here in the winter, and this is not surprising when one remembers that it owes its exquisite colouring to the lovely but rather tender *Duchesse d'Auerstadt*. By the way, I noticed that "M. L. W." speaks very disparagingly of the colour of *Billiard* and *Barré*, which proves to me that your correspondent has not yet seen this

variety in good form. I had some splendid flowers from this *Rose* last year, but I am afraid it is so injured that it is not going to bloom at all this year. *Georges Schwartz* is a surprisingly beautiful colour, but its constitution is atrocious. I have a lovely rich deep yellow bud of this variety before me as I write, and cannot help thinking how splendid this *Rose* would be for bedding if only it would grow. Unfortunately, it comes of bad parentage, and with *Roses* as with human beings the old proverb, "What's bred in the bone," holds true. *Georges Schwartz* obtained its rich colour from that glorious yellow *Ten Souvenir à Mme. Levet*, a variety not suited for an English climate.

Rose names.—I have just received a list containing the names and descriptions of most of the latest *Roses* from Continental raisers. One would imagine that those who devote their lives to raising beautiful flowers could easily devote a little of that time to finding pretty names for them. Some of these *Rose* names I would not attempt to pronounce, and an "Acme" label would certainly never contain them. Here are just six of the choicest:—

Frau Dr. Thekla Schlegemilch (*Princesse de Sagan* × *François Dubreuil*).

Julius Fabianes de Miesfa.

Frau Lilla Rautenstrauch.

Comtesse Gustave Lannes de Montebello.

Dr. Eugen Teixeira Leite.

Erinnerung an Schloss Scharfenstein.

Suzanne Marie Rodocanachi and *Grossherzogin Victoria Melita* are not the easiest names to pronounce, and it appears to me that we shall have to adopt the American idea and re-christen any of the really meritorious Continental varieties with such outlandish titles as those which appear in the above list.

ARTHUR R. GOODWIK.

The Elms, Kidderminster.

NOTES FROM SWANSWICK.

SEEDLINGS FOR THE ALPINE ROCK GARDEN.

I AM now trying a new plan, or, at any rate, one I have not seen recommended, with seedlings intended for the alpine rockery, sunny or shady. This is to transfer them early from the seed-box without disturbing the roots, and, if necessary, in little clumps, into 2-inch pots, and let them just fill these with roots, then turn them out into their permanent places. They are so much the better for taking an unbroken set of roots, in full activity, into the new life out of doors, and yet one does not want to wait while they fill 2½-inch pots, because by that time it is late for them to take thorough hold before winter and its trials.

Foreign nurserymen use 2-inch pots, I believe, extensively, but in this country they are so little cared for that I find it impossible to buy them locally, and they seem only known in connexion with small Ferns and scraps of Cactus. Yet they have another merit besides that of bringing on alpine; they are most useful for sending seedlings about. A little clump of some small alpine plant established in one of these miniatures, 1½ inches across, travels infinitely better than as an uprooted tuft from the seed-box. The 2-inch pots do not dry up so quickly if they are plunged to the rims in a tray of moss or sand, in a frame, or in the greenhouse, or even out of doors.

Most of the *Oxalis*es are flowering now, and some are very attractive. A planting of *O. floribunda* is more or less a failure, because the bulbs were not true to name, some being the ordinary *O. rosea*, which has a smaller and darker flower, and some being white. They will be superseded for next season by *O. Bowiei*, which has lovely satiny rose pink flowers in large umbels, and is a most persistent bloomer. *Oxalis arborea*, with large white flowers and pale large leaves, would be more popular if it remembered "Handsome is that handsome does," and stayed open for a few hours daily, instead of taking every possible opportunity to put up the shutters. *O. lasiandra*, about 10 inches high, with very bright pink flowers having gay Apple green centres and woolly stiff stems, with dark eight-lobed leaves, is handsome and very distinct,

but also too fond of repose. The pink *O. venusta*, 4 inches to 5 inches high, and the white *O. vespertilionis*, complete my present collection, that yet lacks one of the best—*O. enneaphylla*, which is "on order" for next planting time.

ROSE MAMAN COCHET.

At the Bath Rose Show someone was overheard singing the praise of White Maman Cochet in no faltering tones. The example in a first prize box was certainly perfection, and it was claimed for it that it had visited three separate shows on that and the preceding days, and had had equal honour at all. In this garden, though but newly planted, it is exquisite, but, although not so covered with bloom as *Innocente Pirola*, of all our Teas the most heavily laden, and perhaps the fairest. This waxen flower, so high-centred and so exquisitely reflexed of lower petal, is one of those rare dreams of beauty fit for a world without sin, and it is aptly named; far more angelic, surely, with its delicate and faint, yet intensely sweet perfume, than the heavily-scented White Mary Lilies that stand for the type of innocent virginity. M. L. W.

ROCK GARDENING

A FAMOUS ROCK GARDEN.

WE are pleased to give an illustration of the beautiful rock garden at Friar Park, Henley-on-Thames, the residence of Mr. Crisp.

It is not a rock garden that shows an attempt to reproduce the flora of the Alps in a circumscribed space, and the lesson may well be taken to heart. Those who have fairly spacious rock gardens and wish them to be beautiful places and not merely the receptacles of a quantity of different plants, can only secure such a result by putting upon themselves severe restraint as to the number of kinds to be used at a time. In gardening as in painting no picture can be beautiful whose composition is crowded and confused. There are various considerations that influence the choice of the plants that the rock planter will put together, but we think that the following suggestions would be worthy of consideration: First, to determine which are the plants that give us the truest pleasure. Then to consider which of these will group best together and flower at the same time; for, supposing four or five favourite kinds of plants to be grouped and partly intergrouped, it is a great advantage to let them be those that will bloom together and make one complete picture, and to have the intermediate sets of groups to bloom later in their turn. This is a much more pictorial arrangement than to have the plants flowering in scattered irrelevant patches quite unrelated to each other.

Suppose, therefore, that a spur of rock garden is crowned with bushes of *Andromeda floribunda*, and that steep rocks below it are clothed with *Aubrietia* and *Arabis*, and that at their foot in cool peaty ground there is a generous planting of *Primula denticulata*. Here are four capital things of early April, all in full flower together, making one complete picture, and these four are quite enough. The colouring is of the simplest possible and delightfully harmonious, and the whole thing is so good a picture that one dwells upon it, and



IN THE ROCK GARDEN AT FRIAR PARK, HENLEY-ON-THAMES, THE RESIDENCE OF MR. CRISP.

comes back and back to it to enjoy its beauty in a way that one never does to a more mixed planting of individual objects.

It is, of course, more easy to do in large spaces, but even in small ones the same thing may be done in square inches instead of square feet by choosing plants of smaller dimensions.

Such an arrangement for the pictorial part of a garden by no means precludes the enjoyment of individual plants, but we think it is wiser to have these in a separate place in a series of rectangular raised beds, where each plant may occupy its own pocket, and be as easily visible and accessible as a book on a shelf or a specimen in an economic museum. Such raised beds as are in Messrs. Frobels' delightful nursery at Zurich could hardly be improved upon. They are perhaps 6 feet wide at the bottom and 15 feet long. They are steeply rock built, and accommodate a large quantity of plants.

If the beds are placed east and west as to their length it will give each a shady and a sunny side; a ridge of small shrubs at the top would give more shade on the north side. Such beds also afford the best opportunity of suiting plants with special soils, for one may be built of limestone, another of granite, another of sandstone, and so on, so that plants from all kinds of geological formations would find themselves at home. The plants in these rock beds would be grown distinctly as samples and labelled, then those that were the best liked and that showed the most aptitude for making good combinations for the rock garden could be increased and brought into better use.

Labels should never be seen in the beautiful rock

garden; they are destructive of all pictorial effect and damping to the sentiment of the truest enjoyment of plant beauty. You want your rock plant to say to you in cheerful sympathy: "I am one of the loveliest of the plants that God has given you for purest pleasure and for your bettering in gladness and thankfulness;" and not merely to inform you with cold official ansterity, "I am *Aubrietia deltoidea* (De Candolle)."

THE FLOWER GARDEN.

ALPINES IN A WET JULY

A PIOUS old woman in the Eastern Counties, speaking of the recent weather, gave her opinion that it was "perfectly bigamous," using probably the worst epithet in her vocabulary for anything superlatively wicked and bad. Yet, however unfavourable the saintly arbiter of summer rain may have been to haymaking and garden parties, he has dispensed his gifts in a way which has suited rock plants. I am writing on the last day of July, at a date when the rockeries generally look rather bare of flowers and withered, but this year they are full of gay colours and luxuriant foliage, for which they have to thank the abundance of rain. I mention a few of the best and dwafier kinds, with brief notes on their treatment, which I am told are always welcome for beginners. *Cyananthus lobatus* and *Gentiana septemfida* are now at their best. The first likes an aspect almost entirely sunless and not too dry. It disappears so completely in winter as to be in danger of having some usurper less worthy of the site crammed over it, for the roots are so slender as to be hardly visible. The *Gentiana* likes partial shade, but is glad of the intermittent gleams of sunshine we have had to expand its flowers fully. Though it grows slowly from seed, it lives long. The dwarfier varieties, less than 6 inches high, are best for rockeries, and this stature proves hereditary from seed. Most conspicuous now are the *Campanulas* of the *carpatica* tribe. It requires time and patience to get a good dwarf collection of these, representing all shades, from dark purple to pure white. A hundred seedlings from a choice selected plant will often fail to produce one individual worth perpetuating. The dwarfest and best are often impatient of division, and must be increased by cuttings taken to the bottom of the stalk in spring. The shape of the flowers varies as much as the colour from the pelviform type, which it is rare to find either very dwarf or pure white, to the deep broad bell of the turbinate and funnel-shaped forms. The spreading septemfid, or seven-cleft flowers of Pritchard's variety *Riverslea*, are showy and good, but in stature it is too tall for a rockery.

Then there are the Harebells. These, too, must be carefully and patiently selected, and not allowed to seed indiscriminately into a

jungle of tangled and prostrate stems all over the rockery. A good form should not be more than a foot high—often much less—and should have a stalk strong and elastic enough to resist wind and rain, and to rise again soon after a thunderstorm. It is little use trying to make the varieties or sub-species answer to names which will always be disputed, but they must be chosen by sight and then isolated. Some of them assume a caespitose habit, and can be divided; others must be increased as advised above by spring cuttings. Seedlings from the best should be raised till flowering in pans and pots, but they come untrue and disappointing. I have sown seed from a choice white form which did not produce 5 per cent. of white flowers. Varieties with white flowers are, as a rule, later than those with blue. *Geranium argenteum* is conspicuously good now. It is one of those plants which enjoy rain when in flower, though too much wet in winter kills it. The little bushes are unusually luxuriant and full of flower; here and there one is pure white, others are uniform bright rose, with a beautifully pencilled centre. Birds take most of the seeds, but some are shot into crevices of the stone, and grow where it would be hardly possible to insert plants. I do not distinguish *G. cinereum*, because in cultivation it seems to come from the seed of *argenteum* indiscriminately. *G. subcaulescens*, with green leaves and darker flowers, but equally dwarf, is also good.

The dwarf St. John's-worts (*Hypericum Coris* and *H. nummularium*) are both at their full. The former sows itself, and obstructs little on the sunniest slopes, spangling with thousands of flowers whenever a gleam of sunshine comes. The other grows at home in the Pyrenees, on the face of dripping rocks, so is especially pleased by the present weather. *H. reptans* and *H. olympicum* are just coming to their best. *Epilobium luteum*, rather new in cultivation, a few inches high, with yellow flowers and perennial, is not so good as *E. obcordatum* with rose-coloured flowers; this last must be frequently renewed from cuttings or it dies out. I have more than once commended the dwarf forms of the wild *Veronica spicata*, 6 inches high; their colours are pure white, bright pink, and purple. The collected plants which I bring from Llandudno are the best, as they all, especially the purple, have a tendency to increase in stature from seed, but when two or three years old the original plants can be divided. Not 5 per cent. of the pink come true to colour from seed. An inch of limy soil over a hard stony base suits them.

Amongst dwarf *Campanulas* I should have mentioned *C. waldsteiniana*, which is this year flowering with unusual vigour, both in the stature and breadth of the plants. Few alpine require greater care to save them from being smothered in spring. They are divided more easily than raised from seed. Two Italian species, *C. elatines* and *C. elatinoides*, were sent to me by the late Mr. W. Thompson, and thrive and increase on a rocky slope facing south, and sheltered by Douglas Fir, the prevailing soil being decayed Fir needles. They resemble *C. garganica*, but grow more diffusely and flower more densely and later.

Other rather tender *Campanulas*, like *C. isophylla*, as well as hardy *Cyclamens*, show their appreciation of this site. I should like to mention two miniatures, not because they make any show, but for their rarity in cultivation. One is *Statice gougetiana*, having all the typical characters of a Sea Lavender, but only 2 inches high to the top of the flower. The other is still dwafier in stature, and tries to compensate its small size by its long

name, *Acanthosonchus Cervi-cornu*—"Thorn-Sowthistle Stag's-horn." These words are descriptive of the plant, the flower being a miniature yellow Dandelion. It was given to me without any information as to its native country.

Yellow Flax is in full flower and very showy, and will continue to be so for three months. It is only allowed at the base of the mounds or the seedlings become troublesome. Of the less common late *Sedums*, I can speak well of *S. trifidum*, with luxuriant tufts of green rosettes and pink flowers, for moist and rather shady spots. *S. oreganum*, with yellow flowers and bright red leaves, and *S. asiaticum*, of dwarf, slender growth, with small yellow umbels. Of course *S. kamtschaticum* is indispensable, and, perhaps, the best of all *Sedums*. I mention it because the name does not appear in the "Kew Hand List."

Edge Hall, Malpas.

C. WOLLEY DOD.

THE INDOOR GARDEN.

TREE CARNATIONS.

SEASONABLE NOTES.

A L L tree or winter-flowering Carnations that were propagated in the early part of the year, and since that time duly potted on into 4-inch or 5-inch pots, should now be ready for the final shift into the pots in which they are to flower. What size these latter should be will depend chiefly upon one or two things, viz., the comparative vigour of growth of certain sorts and not a little upon the size and quality of the plants, as also the general requirements of the establishment where these things are grown. To secure plenty of flowers the final shift must be a liberal one; indeed, if success is to be achieved with this section of the Carnation, the latter should be understood from the very outset to be a soft-wooded plant. The freshly made growth of a Carnation may root in three weeks quite well, and by the end of a month is quite ready for potting into 3-inch pots. Given a month in this the pots should be sufficiently well filled with roots to guarantee the plants being transferred to a 5-inch size. With longer days and continued growth the same plant should at the end of six weeks be again ready for its final shift to the flowering size. This may seem all too quick for those who are content with half a dozen blooms on a plant in a 5-inch pot, but for those who know that in the same period the same plant, with liberal treatment, will readily produce two dozen blooms in a 7-inch pot in its first flowering, and an equal number, if not more, in the second or spring flowering, this rapid succession of shifts is an item that must receive attention. It should, however, be distinctly borne in mind that a large final shift is quite useless, unless the plant is of sufficient size. When the cuttings are young and vigorous, nothing but neglect will produce a hard wiry condition of stem, and where this ensues full development is not attained. Strong vigorous growers like Mrs. T. W. Lawson or America cannot be well grown unless liberal root room is given, together with a good top-dressing in winter. Large 7-inch pots will not be found too large for any stock of these varieties, rooted in January or before that time, while I would readily give pots of 8 inches diameter to any stock rooted and potted in the past autumn. Such bushy low growing sorts as Winter Cheer of the same age may be grown perfectly in pots of 7 inches across. Mlle. Carle, Mrs. Brooks, and other white sorts generally may, for the largest sized plants, be kept in the same size pots, for it is an unmistakable fact that these white-flowered Carnations root less vigorously than either reds or pink-flowered sorts. That old American-raised variety, Wm. Scott, now so rarely seen, is still one of the best for constitution, and a great bloomer, in spite of its rather heavy saw-edged petals. But for those who must have flowers it is

one of the most reliable, and early-rooted plants of it are well content with pots 7½ inches across.

These few varieties are given as examples of the different shades of colour, while duly regarding the vigour of the variety. It is important, too, to ascertain the full development of any variety as early as possible, as only in this way is a guide to be obtained as to the general requirements. With these liberal shifts, a good drainage, moderately firm potting, and liberal root waterings and syringing or damping down about the beds should also be given. A good bed of ashes rendered hard and impervious to worms is the best place for the plants when the final shift has been given. Any plants that have been once stopped and have since formed several side shoots should be now in a condition for the final shift. It is, however, desirable that the potting be accomplished by the middle of July for the later batches. A few days, more or less, in the 5-inch pots will not injure the plants; it is in the earlier days that the mistake is made. Stopping must be regulated largely, if not entirely, by the general requirements of the establishment in which the plants are grown. Generally, however, the flower-spikes should be pushing in September. If this is not the case a weakly flower-spike is most likely to follow, and it is also likely to be destroyed by fog if the plants are grown near London. This is especially true of Winter Cheer, among others; in fact, this red-flowered sort is very quickly affected by fog and insufficient light. It is dwarf, but makes very slow headway, and for this reason the latest time for stopping the shoots for winter flowering should be the middle of July. This period may require modification in hot and dry or very wet, sunless summers. These are the things the grower must watch for. As to soil, use good turfy loam, twelve months stacked, with layers of manure, bone-meal, and soot alternately. Cut straight down this will make a fine mixture roughly chopped with spade, and not sifted at all. When chopped up a free addition of sand and a little charcoal will make an ideal mixture. Highly concentrated manures should be avoided, they are not necessary, and in certain hands are most injurious.

E. JENKINS.

SOUVENIR DE LA MALMAISON CARNATION.

Now that the season of this plant is drawing to a close a few hints upon cultivation may be useful to those who have not hitherto been successful. I will begin with the operation of layering. Pits or frames should be provided for this, and they should be filled to within about a foot from the glass with equal parts of loam, leaf-mould, sand, and a little burnt earth. Should the pits be deep any rough material could be placed in the bottom with about 6 inches of the above compost. The old plants should be knocked out of their pots and planted sideways. The incision is made about 7 inches or 8 inches from the tip of the leaves. Press and peg firmly in the soil, sprinkling a little more sandy soil around each as you proceed. The layers root more quickly when nearly severed. Afford water and keep the pits close and shaded with a little air during the day. In a fortnight or three weeks they should be well rooted; more air should then be given them, gradually increasing it day by day for about a week, when they should be cut clean away from the old plants. A few days later the lights may be taken off, giving the plants plenty of water and exposing to full sunshine. They will make strong growth and plenty of roots, so that they can be taken up and potted into 6-inch pots for flowering. The following year they can be placed in 8-inch and 10-inch pots after flowering.

The earlier the operation of layering can be performed after the plants have done flowering the better; the soil for potting should consist of two parts loam, put through a coarse sieve, and the rough used, together with one part half-decayed leaf-mould, one part old mortar rubble, half part burnt earth, a little coarse silver sand, and a good sprinkling of Bentley's Carnation manure, with a slight dusting of soot over the crocks. The layers, after being potted, should be placed in cool frames



CALOCHORTIS IN CAPTAIN REID'S GARDEN AT YALDING, KENT.

or pits, and kept rather close and slightly shaded for a time. They can soon be fully exposed, excepting in wet weather, until the frost sets in, when they should be housed. Keep them always as near the glass as possible, and if possible provide a cool, moist bottom of crushed coke or sand or shingle. A dry atmosphere in the house or pits must be maintained, and the plants at all times must be kept on the dry side, but should never be allowed to become so dry as to flag. Plenty of fresh air should be given on all favourable occasions, closing the top ventilators almost entirely during stormy weather, leaving those at the bottom open, but at no time attempt to coddle them or employ fire-heat, except in very severe weather. Thick shading is not so necessary as some people imagine; endeavour to give the plants all the sun and light possible, except when in flower, when a thick shade is necessary to prolong the flowering season and to retain colour.

There are now many excellent varieties much easier to cultivate than the old blush and pink. Those who can successfully grow the two latter will find no difficulty in cultivating most of the up-to-date varieties, such as Calypso, Lord Welby, Mrs. Martin R. Smith, Jane Seymour, Margot, Albion, King Oscar, Mrs. Trelawny, Baldwin, and Horace Hutchinson. For these, which should be in every collection, however small, we are indebted to Mr. Martin Smith and other enterprising raisers. Cecilia, grown in the same way as a Malmaison, will be found well worth the space it occupies.

CHARLES J. ELLIS.

Warren House Gardens, Stanmore.

NOTES ON HARDY PLANTS

GROUP OF CALOCHORTIS IN BLOOM.

THESE Calochortis (forms of *C. venustus*) flowered so gloriously this summer that I felt obliged to take a photograph of them. They have been in their present position for six or seven years, in light soil on a sloping south border, and have never failed to bloom satisfactorily. Formerly I used to put

a frame-light over them in the late summer and autumn, but the last three or four years I have not taken this precaution, leaving them severely alone till November, when they get a light top-dressing of fine ashes and peat.

NIEREMBERGIA RIVULARIS.

THE illustration shows a strong and healthy patch of this charming perennial in bloom, and it will be at once noticed that all the flowers are situated either on the portion of the clump which has worked its way under the edging stones into the gravel path, or on that immediately adjoining these stones. This fact has been quite a revelation to me, and may prove useful to those who, like myself, have not hitherto succeeded in blooming the plant satisfactorily. Until this year I had never had more than a dozen blooms or so thinly distributed over the whole surface, but by a lucky chance matters seem now to have righted themselves, and I shall dig up no more



NIEREMBERGIA RIVULARIS AT YALDING, KENT.

straggling tufts from the gravel path, but encourage growth therein, and also insert pieces of stone in the main body of the clump when the foliage has died down. The soil is a strong loam, the gravel in the path also containing a good deal of clay or loam. I need hardly add that this *Nierembergia* is a lover both of sun and water, and requires a good deal of the latter in a dry summer; it is more than likely that the weather of 1902 agreed well with its constitution, and was at any rate partly the cause of so much bloom this year.

Yalding, Kent.

S. G. R.

DRYAS LANATA.

THIS interesting species is growing well in my rock garden, and appears to be more free flowering altogether than *D. octopetala*, to which it is evidently closely allied. As far as I am able to ascertain, the real difference between the two species lies in the fact that *D. lanata* has woolly and narrower leaves than *D. octopetala*. The flowers, too, are a trifle smaller, and the plant is a strong grower with me. *Dryas lanata* is a native of South Tyrol, and is, I believe, synonymous with *D. nivea* of Kerner. I am treating it in the same way as *D. octopetala*—light stony soil and semi-shade—under which treatment it seems perfectly happy. In the supplement to "Nicholson's Dictionary" it is described as "a Tyrolean form of *D. octopetala*, having woolly leaves."

Kidderminster.

ARTHUR GOODWIN.

SYMPHYANDRA HOFMANNI.

ALTHOUGH I prefer *Symphyandra pendula* to the biennial members of the genus, there is a distinctness of character about such species as *S. Hofmanni* which makes it desirable to grow it and *S. Wanneri* as well as the old *S. pendula*, which, one must remark, is not so easily cultivated everywhere. *S. Hofmanni*, sometimes, by the way, erroneously converted into *S. Kaufmanni*, is a biennial only, but it reproduces itself so freely from self-sown seeds that it is practically as good as any perennial in suitable soils. It must be a dozen or more years since I got my first plant, and now there is a severe thinning out annually to prevent one from having a superabundance. Self-sown plants of this species are more vigorous and produce more flowers if left undisturbed than those that are transplanted. This *Symphyandra* is not a showy plant, but it is always pretty and acceptable in the garden from its long flowering—generally from early in July until well into autumn—the flowers being produced in succession. These are drooping, and a rather creamy white in colour. The calyces come down over a considerable portion of the flower, and it is noteworthy that they are almost spurred in form, reminding one somewhat of the spurs of the *Columbines*. The ordinary height of the plant is

from 1 foot to 2 feet, but it varies even more according to the character of the soil and the nature of the season. Its leaves are lanceolate and acute. This *Symphandra* does not seem particular as to soil, but if wanted to reproduce itself from self-sown seeds a rather light one is preferable. It is a native of Bosnia, whence it was introduced in 1884. Although I have flowered a number of plants I have never come across any variation in the colour.

CAMPANULA ALPINA.

AMONG the prettiest of the many beautiful dwarf Harebells one must place *Campanula alpina*, now well in flower. It is not only a choice little plant for the rockery, but it may also be used with advantage in the choicest and most carefully tended borders. It does not appear to be so much cultivated as its beauty would deserve, and it is far from plentiful in nurseries where such plants are largely grown. This is not because of its novelty, for it is not a new plant by any means. It is easily distinguished from the others of its class by its woolly, lanceolate leaves, and by the pyramidal arrangement of its large, deep blue drooping flowers (something like those of *C. Hostii*), which it produces very freely. Its ordinary height is from 6 inches to 10 inches, and, like many flowers with woolly foliage, it appears to like rather a dry situation. I find that the slugs are fond of this plant, and at certain seasons they require to be searched for in its neighbourhood and destroyed, unless it is protected by a zinc ring. It likes a sandy peat soil, with the addition of a little lime. S. ARNOTT.

Carsethorn, by Dumfries, N.B.

AN ARTIST'S NOTE-BOOK.

A NEW NYMPHÆA.

(*N. GIGANTEA HUDSONI*.)

A SEEDLING raised by Mr. Hudson and an improvement in size and colour on *N. gigantea*. We saw the plants recently, and thought few of the more heat-loving *Nymphæas* so beautiful and distinct. It is in a frame, and the water is kept just warm, the flowers appearing in profusion and measuring individually from 8 inches to 10½ inches. As the illustration suggests, the segments are broad, while the colour is a clear blue, deepening in the outer segments. It was awarded a first-class certificate recently by the floral committee of the Royal Horticultural Society. The *Nymphæas*, both the species and hybrids, and *N. stellata* and its forms, are very beautiful just now in the Gunnersbury House garden.

ROUND ABOUT A GARDEN.

MORE BUTTERFLY FLOWERS.

WHEN writing of the flowers that attract butterflies and moths, I omitted to mention

two which are almost the most alluring of any. These are the *Ageratum*, both blue and white, and that sweetest of flowering herbs, common *Lavender*. All kinds of perennial Sunflowers are attractive, too, to a certain extent; but, as a rule, you will not find that the butterflies love showy flowers. Many of their favourites are greenish yellow; and of the rest the majority fall within a range of modest colours, from bluish grey through faint purples and mauves to dull crimson. Not that we need credit the butterflies with æsthetic tastes which revolt against gaudiness. The fact is, no doubt, that gaudy flowers do not have honey and perfume to the same extent as their more modest-hued sisters.

COLOUR versus PERFUME.

Regarding Nature from the sentimental stand-

bright colours, honey, and perfume of flowers to the tastes of insects.

THE FIRST RED ADMIRAL.

To return, however, to the garden, where I for one think that we are amply repaid for a certain loss of ordered beauty by the presence of perfume and butterflies, there is always a touch of sadness in the pleasure with which one witnesses the arrival of the first Red Admiral among the late summer flowers. It is so undeniable a sign of approaching autumn, because we know that the long months of winter must pass before that butterfly will fulfil the purpose of its life, and lay its eggs upon the rank-growing shoots of Nettles in the spring. The 1st of August may be taken as an average date for England generally when you may look for the Red Admiral, and its advent is quickly followed by multiplying signs of the coming of autumn.

THE ROBIN SINGS AGAIN!

Within a week, for instance, you may hear the robin sing—this year, indeed, one sang in my garden before the end of July—and I know no sound more abruptly suggestive of winter than the sudden trill of a robin in a silent shrubbery near the house. Even before he sings the robin has told us that times are changing in the garden by the chattering note which he uses when he begins to claim his sphere of influence for the autumn and winter. This “chit-chit” is his war-cry. With it he abuses the cat, challenges his rivals, and punctuates his skirmishes among the shrubs. Later, when he begins to sing, you know that his preliminary conflicts have ended satisfactorily, and that he is announcing to all whom it may concern his possession of a winter residence, which he is prepared to defend against all comers.

DAHLIAS AND FROST.

With the Dahlias just coming into their splendour, however, it seems absurd to be thinking of winter, even when the robin sings, although perhaps it happens more often than not in exposed districts that the Dahlias are cut down by early frost before the best of their flowering time is past. No garden wreck is more suddenly complete than the collapse of the frost-bitten Dahlia. On the previous afternoon the spiky blooms of wondrous hues gleamed like clustered coronets of splendour above their solid pyramids of stout, rich foliage. In the morning, for a brief space, they look more beautiful still, if possible, with their silver-edged leaves and the colours of their blooms glowing like tinted flames through a dainty veil of frost. Even when the sun, rising in the sky, has licked off the last of film of



THE NEW NYMPHÆA GIGANTEA HUDSONI.

(Two-thirds natural size.)

(Raised by Mr. Hudson, gardener to Mr. Leopold de Rothschild, Gunnersbury House, Acton.)

rost's sugarwork, the Dahlias keep up a brave how. Their flowers never looked so brilliant, nor their leaves so richly green, as when they stand glistening with melted hoar-frost and returning the sun's stare as though nothing were amiss. But a deeper hue creeps quickly into the leaves; the flower-stalks nod more and more; and very soon all the queenly Dahlias drop, black and dragged wrecks, around their stalks, suggesting in their ordered rows the spect of some heathen amphitheatre on the morrow of a Christian holocaust.

DAHLIA FASHIONS.

This susceptibility to frost is the worst drawback to the Dahlia as an autumn flower, though I do not suppose that it would interfere greatly with its utility or the purpose for which it was first introduced—as a food-plant to take the place of the Potato. One can hardly realise that English gardeners first knew the Dahlia as a vegetable, though in insisting upon treating it as a garden flower they can hardly have foreseen the splendid results which its cultivation would produce. We have been very capricious in its treatment since then, first moulding it in one way until we achieved blooms of marvellous hues, as at and smooth and round as any butcher could carve out of a Turnip and dip in aniline dye to decorate his Christmas meat withal, then suddenly abandoning this amazing triumph of our own creation in favour of the sweet simplicity of "single" flowers of tender æsthetic tints. Just, however, when we were on the point of hoping to get our single Dahlias as big as soup-plates, we were suddenly switched off to another line in pursuit of the Cactus Dahlia, with an deal of spikiness like that of some weird starfish.

TO SAVE OLD TYPES.

Perhaps there are some skilful and long-sighted growers who could make a very shrewd guess as to the next direction in which Dahlia fashion will be guided; but it will be a pity if some of the best results achieved with the old-fashioned double and single kinds are lost. When fashion begins to play fast and loose with any varieties of cultivated plants we scarcely notice when a valuable, but tempo-

rarily neglected, type disappears beyond recall. In our craze for new varieties we are in constant danger of losing old-fashioned types, which are well worth preserving for their own sake as well as for the memories that linger round them. Of Dahlias especially there are many which deserve to be rescued from the extinction which now threatens them, and we can all do something to this end by insisting upon retaining a few old sorts that we like by the side of more modern creations. They will not always suffer by comparison.

E. K. R.

TREES AND SHRUBS.

VERONICA HULKEANA.

THIS shrubby Veronica, whose home is in the mountainous portions of New Zealand, is, without doubt, the most beautiful of its section. In the late spring a plant such as that shown in the accompanying illustration, which occupies a wall space of 4 feet by 4 feet, is a lovely picture, being covered from its highest point to the ground level with long, branching flower-panicles of a delicate lavender colour, which render it when in full bloom the most attractive plant in the garden, and one that rivets the attention of every visitor. As I was leaving home in a few days I cut all the flower-sprays when at their best, and found that they numbered just over a hundred, the longest of which measured slightly over 18 inches. It is totally distinct in appearance from all other shrubby Veronicas, and to my mind far exceeds the most ornamental of these in loveliness. Its natural habit is to form a loose-growing bush, but when grown in the open it is always safer to train it to a wall on account of the protection it receives when so planted. Exceptionally charming as is this plant, it is but rarely seen in gardens, and I know few, even in the genial south-west, which contain it, a fact that has always been a puzzle to me. Though generally deemed tender, I have found it far harder than many others of the shrubby section, and I have seen these very badly injured by frost in a garden where *Veronica hulkeana* is grown while the latter was quite unharmed, and for this reason I should advocate its being tried in the open, on south walls, anywhere in the southern counties. The one drawback to *Veronica hulkeana* is that large plants often die in an unaccountable manner, generally after flowering. Possessors of fine specimens who are aware of this fact are therefore on tenter-hooks during the summer lest their favourite should show signs of failing vigour, for the loss of a large plant of this *Veronica* deprives the garden of one of its most beautiful objects in the latter days of May. If the flower-sprays were cut immediately they reached their prime the drain of seed-bearing would be spared the plant, but that this would not ensure its continued health may be gathered from the fact that large examples which have flowered and borne



VERONICA HULKEANA IN THE SOUTH-WEST.

seed in perfect health for years have ultimately died. Cuttings 4 inches to 6 inches in length, taken off with a heel in the early summer, strike readily, and plants are also readily raised from seed, but it takes a long time for a cutting or seedling to rival the proportions of a fine specimen which has died; however, both are pretty even in their early stages of growth, as they commence to flower when quite small. In the colder districts *Veronica hulkeana* makes a charming greenhouse plant. The finest example that I have seen in the open covered a wall space of 6 feet by 6 feet, but I have heard of even larger plants. S. W. FITZHERBERT.

THE ROBINIAS.

THE Robinias are represented in this country by four species and from twenty to thirty varieties, practically all of which are handsome trees suitable for large gardens, while a few are smaller growing and for small places. The species are all natives of North America, and are thoroughly hardy in this country, succeeding well almost anywhere, as also the varieties, though all require attention in the matter of staking while young to prevent damage from high winds.

R. hispida (the Rose Acacia).—This is properly a large shrub, though it is sometimes grafted standard high to form a small-headed tree; but this form of growth is unsuitable to it, as no hardy plant gets damaged so quickly by high winds as this Robinia and its variety, both of which, however, make excellent wall plants, and run no risk of being broken to pieces if a wall can be spared for them. *R. hispida* is a fairly rapid grower when once established, and makes long brittle branches, which are sometimes broken by the weight of the leaves and flowers. The stems and young shoots are clothed with long, bristly, reddish-coloured hairs, which give the plant a character easily recognised. The leaves are pinnate, about 1 foot in length, and consist of eleven to fifteen large oval leaflets. The rose-coloured flowers are in long, drooping racemes, opening about the end of July, and continuing in flower for a considerable time. *R. h. var. inermis* differs from the type in its longer leaves with smaller leaflets, its deeper and more brightly-coloured flowers, and smooth wood and branches, though a pair of small spines are usually found at the base of the leaves. These two are usually met with under the names of *R. rosea*, *R. hispida rosea*, or *R. macrophylla*, the names being given to either as the fancy arises. They are usually grafted on stocks of *R. Pseudacacia*, but a better method of propagation—though a more tedious one—is by layers. I believe that seed-pods of these plants have never been seen, not even in a wild state.

R. Neo-mexicana.—This is a vigorous species that will probably make a large, handsome tree in course of time. It is comparatively new in this country. The leaves are pinnate, consisting of about twenty, entire, oval-shaped leaflets, of a bright green above, and paler, almost glaucous, beneath. The branches have a pair of stout, sharp spines at the base of each leaf, and pointed at right angles to the direction of the leaf. The flowers are bright pink, and freely produced on fair-sized trees in drooping, clustered racemes. This plant seems to do fairly well when worked on *R. Pseudacacia*, but seeds can be obtained without much difficulty, and should be employed for propagating it whenever possible.

R. Pseudacacia (the Locust Tree or False Acacia).—This is a well-known tree in nearly every part of the country, a specimen of it being a feature in almost every parish. It deserves cultivation for the sake of its long racemes of white, scented flowers, but the wood is also valuable, being hard, close grained, and easily worked. There are a great many varieties of this, a selection of which is as follows: *Var. aurea*, with golden foliage and free, graceful habit; *var. bessoniana*, a vigorous grower with pink flowers; *var. crispa insignis*, the leaves of which are curiously curled, quite distinct from the type; *var. decussata*, with bright rose-coloured flowers; *var. fastigiata*, which has the upright habit of a Lombardy Poplar; *var. inermis*,

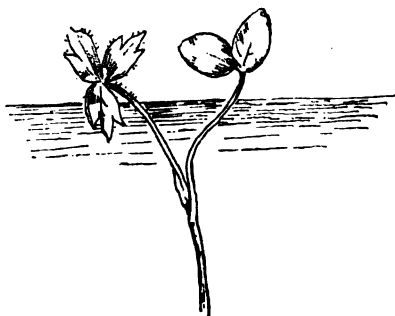
a spineless form, which grows into a small, round-headed tree without any pruning, and is used largely, almost too much so, in villa gardening; *var. microphylla* or *elegans*, with small Fern-like foliage and robust habit; *var. rozynskiana*, a comparatively new form, the leaves of which have a purplish tinge, and are upwards of 3 feet in length; and *var. semperflorens*, which is more or less in flower all through the summer. There are many other varieties, but the above selection will be found satisfactory. These varieties all do well when grafted on stocks of the parent plant, which can itself be easily increased by seeds, suckers, or root-cuttings.

R. viscosa (the Clammy Locust).—This makes a smaller tree than the preceding, has a roughened gnarled trunk, and reddish coloured branches and leaf-stalks, which are also covered with a thick, glutinous substance. The leaves are pinnate, and the flowers rose-coloured, nearly scentless, and crowded in thickened, oblong racemes. It can be propagated by seeds, suckers, or root-cuttings. The Robinias are practically indifferent as to soil, but young plants should not be treated too well, as this tends to rank growth, which suffers from high winds during the time the foliage is on the plants. Bagshot, Surrey. J. CLARK.

RAISING ANEMONES FROM SEED.

WITH regard to this I have observed a peculiarity to which I wish to draw the attention of your readers; perhaps it will save disappointment to others who, like myself, have hitherto been ignorant of the fact.

I have repeatedly endeavoured to raise *A. alpina* and *A. sulphurea* from seed, sowing the seeds directly after they were ripe, and each time seedlings came



ANEMONE NARCISSIFLORA SEEDLING.

up quickly and well, but remaining tantalisingly long in the seed-leaf state; they eventually, without pushing true leaves, one after the other turned black and disappeared (as I then thought through overhead watering with rather hard water). As the seedlings had come up and had, to my mind, "damped off," I naturally did not keep the pots any longer. Last year I tried again with the same result; the pots, however, had been snowed up early and remained plunged with the rest in the frame, when, to my surprise, there appeared in spring some true *Anemone* leaves in each pot.

Two seed pots of *A. narcissiflora* which I had kept over from the time of sowing in the autumn of 1901 (knowing this species to be very slow in coming up), have now revealed to me the process which takes place. During the hot weather of last March several hundred seedlings came up in these two pots; they remained in the seed-leaf without any sign of budding leaves between the cotyledons up to the end of June last, when I went on a four weeks' holiday.

On my return home I found that the cotyledons, in spite of the treatment all the while with the same hard water, were still of a healthy green colour and "barren" as before, but there came

from out of the mould (independently from, but close to the stalk of the seed-leaf), the true leaves on about a dozen of seedlings, so that I hope to see the whole of them a success.

The conclusion to be drawn from this seems obvious enough—seeds of *A. alpina* and *A. sulphurea* which were sown in, say July, send up their cotyledons merely to nourish the roots while descending to the proper depth, in order to form the underground bud from which anon the new plant is to spring, hence the long and apparent inactivity of the seedlings. After this bud has been formed, and thus the destiny of the seed-leaves fulfilled, they become superfluous and die off. By this time, however, the season having become too far advanced for the bud to push, it remains dormant until genial spring calls forth active life to form the new plant. *Anemone narcissiflora* having germinated in early spring found time enough to complete the process without interruption, its seeds having rested dormant in the ground longer in their turn by way of compensation.

Of other *Anemones* I have only had experience of *A. vernalis*. This, when sown directly after seed is to hand, comes up quickly within a few days, and as quickly in succession follow the first leaflets. By the autumn plants that look strong enough to flower in the ensuing spring have developed, though whether they do so I am not prepared to say, as hitherto I have only planted collected stock. *A. vernalis* is a lovely flower and never fails. Planegg, Bavaria. ED. HEINRICH.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

CYTISUS ANDREANUS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was glad to see that Mr. Burrell has drawn attention to his failures with this shrub, and I am pleased to add my experience. I lost my first plant; it was grafted, and no doubt on the stock spoken of by "H. F." on page 65. I obtained another much dwarfed, and I presume it was from seed. This has grown vigorously, and from it I resolved to save seed, hoping to get some more of it. Several seedlings appeared, and, oddly enough, at the end of three years they all bloomed, but to my astonishment only one of them proved to be *andreas*. This shows that it is very apt to revert to *C. scoparius*, but I prefer this to having grafted plants. *C. andreas* is most charming when grown as a bush close to the ground. It is ugly and unnatural on long stems. Chard. J. CROOK.

EARLY PEACHES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In a recent issue of THE GARDEN Mr. Wythes makes some comment on the comparative value of different early Peaches, a subject always interesting to fruit-growing readers. "Alexander," Mr. Wythes says, "has been discarded in favour of Waterloo, because of its bud-dropping propensities." On reading the note in question I was somewhat struck with the preference for one of two habitual bud droppers. I have grown both varieties—at least they have been planted under these names, and though they differed slightly in general characters, they both seemed alike in the matter of shedding the buds in winter. So regularly did this happen that a tree of each in our early house had to be removed. In another cold house, Waterloo at the present time fails each year to give a full crop, though the buds do not drop so badly as when forced, still the tree loses a deal of value by reason of this failing.

Outdoors they fruit most regularly and freely—too freely, in fact—and for an early crop nothing better could be wished. Amesen June under glass is much more to be depended upon; the colour of this Peach is equal to Waterloo or Alexander, and

When well grown, and not overcropped, the size is good also. While so many complain of these bud-dropping traits, there are some who stand by Alexander because it gives heavy crops of handsome fruits under any conditions, forced or otherwise. It is somewhat difficult to give a reason for this uncertainty, but soil, structure, and elevation must have some considerable controlling influence. Though faulty constitution is usually attributed to these American Peaches, I have never yet heard a satisfactory solution given why Alexander should drop almost every bud, while sorts like Grosse Mignonne or Royal George, for instance, growing in the same house, should develop flowers and fruit without loss. Hale's Early with some is almost as bad as Alexander, but with others it is a very reliable Peach. I am at one with Mr. Wythes in giving Condor a good name and recommendation. It sets very freely, is of good medium size, and its quality first-rate.

W. STRUGNELL.

NEGLECT OF THE VERBENA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In view of the increased interest taken in Verbenas of late, a perusal of the list of plants certificated by the Royal Horticultural Society between the years 1859 and 1899 is very interesting, as showing the gradual decline of these charming flowers. In 1859 two varieties were honoured, then in the sixties the number had increased to seventy-two, the next decade saw a drop to thirty-two, the eighties witnessed a further decline to eighteen, and, lastly, from 1890 to 1899, only two were recognised by the floral committee. The awards were in most cases either first or second class certificates, as the award of merit is of recent introduction; in fact, the first Verbena upon which this was bestowed was in 1890. Recent interest in Verbenas has been undoubtedly a good deal stimulated by the variety Miss Willmott, which, apart from its value for bedding purposes, has been taken in hand by some of our large market growers, who turn out large quantities of perfect little specimens, each carrying numerous large heads of rich pink blossoms, and all grown in the regulation 4½-inch or 5-inch pots. The scarlet variety Warley, recently shown by Miss Willmott, bids fair to be a good companion to the other.

H. P.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am one of those who, happily, have never quite given up the culture of the Verbena. For a number of years I grew the old selfs, e.g., scarlet, blue, white, and purple. My experience, however, with them is this: In common with almost every garden plant which has to be propagated by means of cuttings, a change of stock is absolutely necessary in course of time, and this I find to be most difficult to obtain. As your correspondents point out, the Verbena, or at least the named sorts, has been very much neglected, and I fear that such beautiful varieties as Defiance, Emperor, Blue King, Avalanche, and other equally beautiful have gone for ever. A friend who was my neighbour for a number of years once grew some of these, but I fear they have now gone too.

I quite agree with your many correspondents respecting the "coddling." A fairly dry cold frame where the frost can be kept out is all that is required for them during the winter. Last winter Verbena Miss Willmott kept perfectly healthy in a frame built against a house with a south aspect. What one has to guard against is a dry, hot atmosphere; this will soon ruin Verbenas. Thrip and greenfly will attack them, and all the dipping and fumigating one can give will not save them. The Verbena likes a cold and not too dry atmosphere during winter. In spring a little more heat will cause it to produce plenty of healthy cuttings,



BROWN TURKEY FIG IN THE CHANNEL ISLANDS.

which soon root in a mild Cucumber frame. But cuttings from stunted plants will be difficult to root, and rarely grow freely.

G. A.

THE FRUIT GARDEN.

FRUIT CULTURE IN THE CHANNEL ISLANDS.

FRUIT culture in the Channel Islands has been of long and steady growth, although at times its development has been startlingly rapid. In the remote past the culture of Apples for Cider, largely for export, was an important item with the Channel Island farmer. This has been steadily declining, Cider orchards in more recent times having been ruthlessly cut down, and the land cleared for early Potato culture. This for a time certainly held out better prospects, but this, in its turn, has changed for the worse. Many who read of the vast export of fruit, vegetables, and flowers from these islands are surprised at its volume, and visitors who witness the long stream of carts and vans laden with produce wending their way to the quays are astonished that such little patches of land, well and carefully cultivated, can send so much to the mainland markets. Nearly every Channel Islander is, more or less, born with a taste for soil cultivation, and takes a most intelligent interest in the industry of the islands. This has proved to be to their great advantage, and we believe if a like spirit existed in England and Ireland, and if such a spirit were encouraged, England would be better supplied with home produce than she is at present, and considerably less money by many millions would annually be paid for foreign produce.

Figs have always been largely and well grown in the Channel Islands, in the first instance, of course, in the open air, before we exported fruit. In those days large trees were trained flat over a wooden framework, varying in height from 4 feet at the front to 6 feet at the back. Many of these trees are still grown for supplying fruit in its natural season. When forcing came into favour many of these large trees were covered with glass, and in some instances pipes and boilers were employed.

The increase of profit was of course very great, but many of the trees so treated died after a few years. This, no doubt, was largely caused by lack of water during the winter and early months of the year. A few large trees which would now be valued were actually cut out owing to prices falling for a time.

Some old trees under glass, however, are still doing well. But the new grower now generally grows pot plants, or small trees planted on the floor and trained over the roof. In the latter case root-pruning is found to have excellent effect in restricting excess of vigour. Generally speaking, the crop may be looked upon as profitable. Figs are still not generally liked, however, so that it would probably be easy to glut the market. It certainly would not be wise for a grower to go in too largely for Fig culture. Many varieties have been tried, but Brown Turkey alone appears to meet with general favour. It is found to be the most reliable and productive.

A CHANNEL ISLAND GROWER.

GARDENING OF THE WEEK.

FLOWER GARDEN.

PROPAGATING.

ALTHOUGH many of our bedding plants have made slow progress this season, it is quite necessary that their propagation should now be taken in hand if strong young stock is to be had for wintering. It is far better to lay in a stock now than to depend on forced plants in early spring; then work comes in with a rush, and it is almost impossible to give these due attention at that busy season.

ZONAL PELARGONIUMS.

The propagation of these should now be proceeded with. I do not suggest that a complete raid should be made on the beds, but there are many young shoots that can be taken off without making much difference to the general effect, and the removal of which will help later growths to develop. Cuttings in the open ground will now strike freely and develop excellent plants. When potted up in the early part of October they make

strong plants from which a useful lot of flower may be taken until, and sometimes after, Christmas, but on the whole I think the most economical way is to use boxes for them; there will then be no necessity to disturb them again until they are boxed or potted off in the early spring. A fair amount of drainage material well covered with some of the more fibrous portions of the soil should be used to prevent the soil becoming sour. A considerable quantity of sand should be mixed with the soil also. If the cuttings are very sappy they should be exposed to the air for an hour or two before being inserted in the soil. Avoid overcrowding in the boxes, give a thorough watering, and then stand the boxes in the open, giving them the advantage of full sun. Here they may remain until frost makes it necessary to put them under cover.

ANEMONES AND RANUNCULAS.

These will now have done flowering. Lift the tubers and store them away until planting time comes round again. Many of the failures we hear of in their cultivation are due to not giving them a season of real rest and ripening.

T. B. FIELD.

Ashwellthorpe Gardens, Norwich.

THE FRUIT GARDEN.

STRAWBERRIES.

YOUNG plants that have been recently shifted from small 3-inch into fruiting pots may be removed from partial shade to a light, open spot, free from worms, and within easy reach of water, of which they will take liberal supplies, until the time arrives for storing them away for the winter. In placing the early sorts, which generally occupy small pots, the latter may be made to shade each other from the direct rays of the sun until the foliage requires more room, when every alternate plant may be taken out, or, better still, all may be turned out and rearranged to prevent their rooting in the bed. Until now the weather has been more favourable to the production of runners than the formation of good ripe crowns; so much so, that a thousand 7-inch pots filled and placed on a nursery bed in this garden are now half filled with roots and occupying their summer quarters, never having been watered with the hand. If the weather still continues wet and unfavourable, all the plants must have full exposure to light and air by being placed in rows on planks, platforms, or low walls, as it is in every way better to have a few

WELL-RIPENED PLANTS

than to swell expenses by wintering a great number than can be properly grown and tended through the summer. When the potting of the forcing plants is brought to a close, provision must be made for another year by planting out the surplus runners before they begin to suffer from confinement in the small pots in which they have been layered. In the selection of a site the first consideration should be light and air, as plants which are shaded and drawn cannot be expected to produce good runners. Next comes the soil, which should be well prepared by the use of manure and deep trenching, and if a little new heavy calcareous soil can be placed round each plant the labour will not be thrown away. If, in addition to the foregoing conditions, a situation near water can be selected, its importance should not be overlooked. Growers who have not been in the habit of exchanging runners with distant friends and neighbours will do well to try the experiment.

CUCUMBERS.

Where the Cucumber house proper is devoted to Melons in summer, the raising of young plants must be regulated by the time it is likely to be ready for their reception. A manure pit or frame with fermenting material for giving bottom-heat is the most suitable structure for raising and growing the plants in, as they can be kept near the glass until they are large enough for shifting into the fruiting pots. Immediately after the Melons are removed clear away all the old soil and plunging material, thoroughly cleanse the walls, wash the glass, and paint the woodwork if necessary; then

fill the pit to the usual level with fermenting leaves, plunge the fruiting pots and introduce the compost, but defer planting until the heat of the bed has subsided to 90° and the soil is thoroughly warmed through. If due attention is given to early closing with solar heat and moisture, and the bottom-heat is kept up, the firing of houses now in full bearing may be discontinued. Dress the plants three times a week, and avoid overcrowding by stopping at the first joint beyond the fruit and by the removal of a few of the old leaves.

Madresfield Court.

W. CRUMP.

THE INDOOR GARDEN.

PELAGONIUMS.

CUTTINGS of the show varieties should be made from the well-ripened wood of the current season's growth. Select for this purpose the best cuttings from the most favoured varieties, and insert them in small pots filled with sandy soil, which should be placed in a cold frame exposed to plenty of light, and kept somewhat dry; except in very bright weather no shade will be required.

KALOSANTHES OR ROCHEAS.

Coccinea is a very useful plant for late summer work when flowering plants are less numerous than at an earlier period of the year, therefore any old plants now passing out of bloom and that have become leggy should be used for propagating. Cuttings from unflowered shoots strike readily in sandy soil in small pots placed on a shelf in a cool house or in a dry, cool pit. These are very impatient of too much water at the root, therefore a little extra care in watering is necessary. *R. falcata* produces very showy corymbs of bright orange-red flowers from July to September, and is best treated as a greenhouse succulent.

TREE OR PERPETUAL FLOWERING CARNATIONS should be layered at once; these are best treated after the manner of Malmaisons. For cut flowers this is the most useful section of Carnations we have, and, as they may be had in bloom practically all the year round, it is desirable to work up a large stock; for general treatment, the hints given for Malmaisons may be adopted.

MIGNONETTE.

Where pyramidal plants are intended to be grown, select the strongest plant in each seed pot and support it with a small stake, at the same time weeding out all the remaining plants. For this method of cultivation a greenhouse is more convenient than a pit. When the leading shoot sets a flower-bud remove it as soon as discovered, and train up the succession shoot in like manner to the first until the desired height is attained. Encourage the side shoots by removing all flower-buds as they appear, and as the pots become full of roots repot them into 8-inch pots, which are large enough for plants 2 feet or more in height. For flowering during the winter make another sowing in 5-inch pots, and as the seeds germinate keep them near the glass in a light, cool, airy house.

VALLOTA PURPUREA.

This is a good time to lay in a fresh stock of bulbs, which should be potted in fibrous loam, leaf-soil, and sand; in potting keep the bulbs 3 inches or 4 inches below the surface of the soil, and place a handful of sand immediately round the bulb, which requires to be potted very firmly, so that it is best to allow them to remain in the same pot for several years.

Wendover.

J. JACQUES.

CHRYSANTHEMUMS.

TAKING THE BUD.

PLANTS which are intended to produce exhibition blooms during November should have been so timed as to have their buds formed during August or the first ten days in September. All the large Japanese varieties should be the first to secure, but many of the incurved sorts are best taken during the early part of next month. This operation requires to be done with much care, as the slightest injury to the main bud which is intended to make

the flower will cause serious defect later on. The surplus buds are best removed during evening or early morning when the growths are fresh and stiff, and a small pointed stick is best for the purpose, holding the point of the shoot firmly with one hand while the small buds and shoots are being manipulated. In the case of strong plants it is best not to be too severe on the first thinning, but to leave one or two shoots near the bud for a few days, which does much to prevent coarseness and hard centres. Feeding should be withheld for a few days; it is a serious mistake—far too often made—to gorge the plants with manure while they are setting their buds and immediately after they are selected.

SURFACE DRESSING.

It is a capital plan towards the end of the month to give all the plants a good dressing of fresh material. The fresh mixture should consist of two parts finely chopped turfy loam, two parts half-decayed horse or cow manure, and a small portion of bone dust added. This must be used moderately dry, and made very firm with a potting stick. Much care will have to be exercised in watering after this has been added or one may be deceived very easily. Thoroughly test the plants both by tapping and weighing them.

TIING THE GROWTHS.

At this season we often experience severe gales, and unless the growths and plants are made very safe serious results are often experienced. Extra lengths of cord should be stretched from post to post, and each plant securely fastened to it, as a strain on a well-grown row of *Chrysanthemum* during gusty weather is very great. Each growth also should be made safe. Some varieties are very much more brittle than others, and unless special means are taken to preserve them most of the points will be broken. I know of no better way to make these safe than to tie Bamboo tips about 2 feet to 3 feet long to the young shoots, using broad pieces of bass for the purpose, and tie the tip of Bamboo to the top line of cord.

INSECT PESTS.

At no season of the year does insect life do more damage than now. Among the most troublesome are the earwig, white thrip, and jumper, consequently a sharp look out must be kept for these, and means taken to eradicate them. Earwigs can be easily trapped, as before advised, with Bean stalks; the plants should also be looked over for them during evening with a lamp. The insect generally known as the jumper does considerable damage in some seasons by piercing the buds when quite small. These must be crushed between the thumb and finger, but are very troublesome to catch. Thrips often do much mischief before being detected; they secrete themselves in the point of the shoot, sucking the life out of it. They have a particular liking for some sorts, especially the Queen family. Thoroughly syringe out the plants with some reliable insecticide—quassia chips, tobacco water, and soft soap made fairly strong is both safe and effectual if persistently used two or three nights in succession. Give the foliage a good dusting of black sulphur on the under side once a week to prevent mildew, and thoroughly syringe the plants on all fine days in early afternoon.

E. BECKETT.

Aldenham House Gardens, Elstree, Herts.

KITCHEN GARDEN.

WINTER GREEN CROPS.

THE dull rainy weather we have experienced since these were planted out has been conducive to extraordinarily rampant growth. What the plants now want is plenty of sun to solidify that growth in order that when wintry weather comes they may withstand it without injury. Brussels Sprouts that have grown strong and are wanted for early pickings or for exhibition should have a rough stake placed against each plant and be tied; this will prevent injury from storms and winds.

CAULIFLOWERS.

In cold districts some seed should be sown at once for wintering in frames for producing heads

when planted out in April. Many gardeners now depend upon plants raised from seed sown in heat early in the year for the earliest supply, and doubtless the system answers almost, if not quite, as well as the older one in certain districts, but in others it does not. In milder localities the 23rd of the month will be found early enough. Sow on a warm border in an open position that the plants may obtain full light. Cover the bed with mats until germination takes place. When the first rough leaf has developed prick out in soil that is not too rich in a cold frame. Keep close and shaded from the hottest sun for a few days to re-establish them, then give all the light and air possible until sharp weather sets in.

PARSLEY.

Another sowing may yet be made for protecting in frames for late winter and early spring use. This sowing may either be made in a prepared cold frame or on a warm border in the open, and when bad weather sets in place a frame over it. The latter method answers well in warm localities, but I advise the former for the north and in damp districts. Any old frame will do for this crop, provided the glass is in good order for throwing off cold rains and snow, which are more harmful than actual frosts. Some rough brick rubble should first be thrown in to form drainage, and over this place a layer of rough stable litter. Then fill up to within 6 inches of the glass with fairly rich soil; this must be trodden and raked level and the seed sown thinly in drills 6 inches apart. Keep the frame close and dark until the seed germinates, and when the seedlings attain 1 inch in height thin out to 4 inches apart.

TRIPOLI ONIONS.

Sow seed of such well known sorts as Giant Rocca and Golden Globe to stand the winter. A plot of ground that has carried a not too exhaustive early crop will do for these. Dig deeply and afterwards tread, roll, and make level. Draw drills 18 inches apart and $1\frac{1}{2}$ inches deep and sow thinly. *Stoneleigh Abbey Gardens.* H. T. MARTIN.

CANTERBURY BELLS AND THYME.

IN THE GARDENS OF HEWELL GRANGE, REDDITCH. THE accompanying illustration shows well how beauty and utility may go hand in hand in the garden. The vegetable garden, if not useful, is, of course, valueless, therefore the crops it produces must first be considered. It need not, however, be unattractive, as the appearance of many a kitchen garden nowadays can testify. There are many ways of imparting interest and beauty to this part of the garden, and there are few that are better than that illustrated. Thyme makes a charming edging to the walk, and apparently enjoys its position, while the Canterbury Bells behind more than pay for the space they occupy. The photograph was taken in the kitchen garden at Hewell Grange, near Redditch, the Worcestershire residence of Lord Windsor. Mr. A. A. Pettigrew is the head gardener. There is no reason whatever why the vegetable garden should not be made a pleasant place when good taste is exercised, and the borders in it can be regarded as a "reserve" garden for cutting from for the house, to save those in the more conspicuous parts being interfered with. In such a border as the one shown many useful flowers can be grown and cut freely from in their season—Sweet Peas, Canterbury Bells, and so on. H. T.

THE KITCHEN GARDEN.

A USEFUL SPRING VEGETABLE—GOOD KING HENRY.

MANY vegetable growers will probably think the above name for a spring vegetable a peculiar one. Probably it is local, as I have heard it called Lincolnshire Spinach and Asparagus, but botanically it is known as *Chenopodium Bonus Henricus*. It is a perennial, a native of this country, but is found in many parts of Europe, though not in a cultivated state. At the same time it is an excellent spring vegetable and of simple culture, and its good eating qualities should make it more generally cultivated. I have never seen it growing much farther north than Lincolnshire, where in this and adjoining counties it is a general favourite, but mostly found in small gardens. In the county named it is usually grown in one corner of the garden, and the green shoots are the edible portion. Its season is from April till June. The plants begin to grow, if in good soil and a sheltered position, in March, and cutting is general in April. The young shoots are cut and tied in bunches like Asparagus, and the best produce is that cut as low down in the soil as possible, though in the county named the growths are often much larger, and only the top or green portion is used, much the same as ordinary vegetables. The plant grown in good soil produces shoots not unlike good Asparagus as regards size, and it is cooked in a similar way and served on toast with melted butter. When the growths are more advanced they are best cooked as a green vegetable. The culture as described is simple; indeed, in the county named a bed is made every few years. The plants are divided just before growth is active, and if the treatment is generous there will be a good return in the shape of shoots superior in size to those left to grow as they like. A simple method of culture is by seed. Sow the seeds early in the spring, in deeply dug land well manured, in rows, 2 feet between the rows and half that distance between the plants. Thinning should be done early, and the plants transplant readily if sown in a seed-bed, so that if only a few plants are grown the last named may be the best method of culture. If the shoots are allowed to get old remove the outer

covering from the base to the tender part, but I think it is much better to cut the shoots when quite young if cooked in the same way as Asparagus. For amateurs' gardens this would be an excellent vegetable, requiring so little attention and giving a good return at a season of the year when green vegetables are scarce.

G. WYTHES.

WINTER SPINACH.

THIS is amongst the most important and useful of winter vegetables, so much so that it is in constant demand. It is difficult in some gardens to keep up the supply, and in many the plants go off at the beginning of the year, while in some old garden soils they refuse to grow satisfactorily. I have observed that in new soil the crop is far better. Another difficulty in its culture is to regulate the time of sowing so as to get plants of the right size, for I have proved many times that when they are too large and severe frost comes they die off just above the ground line. Upon examination I have found that the stems were hollow, the frost freezing them through. This being so for years I have tried to get a hard, solid stem. To do this it is somewhat difficult, as much depends on the nature of the soil, time of sowing, and the season. As our situation is low this evil is increased. I try and obtain a not too forward or coarse plant, but with a hard, solid stem close to the ground. Garden soils are too quick and result in too rapid a growth, but in open fields it is just the reverse. This is why the Spinach crop is often better in fields than in gardens.

The slug is one of its worst enemies, and in the west and on wet, heavy soil the pest is abundant. In selecting a position to sow seed on I chose an open one, and on land that is not too exposed. If it should be loose then it is trodden quite firmly, similar to preparing for an Onion crop. It is difficult to lay down any hard and fast method, as circumstances differ considerably. In our garden I have found land that has been used for early Potatoes sufficiently solid. Our best results have been from sowing where Strawberries have been, not digging or opening it in any way, but simply hoeing over deep enough to draw the drills. Occasionally I have used ground from which autumn-sown Onions have been cleared with good results, this promoting a firm growth.

With regard to manure I make a point of having



CANTERBURY BELLS AND THYME IN THE GARDENS OF HEWELL GRANGE, NEAR REDDITCH, A RESIDENCE OF LORD WINDSOR.

some fresh ashes made from the rubbish heap and mix burnt earth with it. It is essential that it should be put on the land dry, seeing much of the value of the wood ashes is gone when wet. When the seed is sown and lightly covered in this preparation is thrown over the land; it fills in the drills completely, and provides a coating of it for the plants to come through. It acts in two ways, first as a stimulant to the soil and wards off the slugs. The rough bits of charcoal in the ashes make it difficult for the slugs to crawl over. Where there is no charcoal in the ashes we throw a coating of cinder ashes over them.

Sowing time is important. I usually sow on three occasions, as the seasons differ considerably. Our first is at the end of July, again about the middle of August, and thirdly at the close of the month. Should the autumn be early then the two first periods are the best, but if very mild the growth from the first sowing is too coarse and worthless. I have sown the first week in September, but do not recommend it. Always make the soil fine.

Forde Abbey.

J. CROOK.

NOTABLE GARDENS.

CHEDINGTON COURT, DORSET.

OFTEN the most attractive and interesting gardening is to be found in places of moderate size, and there one often finds the most ardent plant lovers. The garden now under notice has a good claim to be placed in this category. Although it has been my pleasure to visit a good number of gardens, seldom have I seen a more attractive one than this, both from its situation and the plants it contains. The Western Counties are famed for their hills and dales. Chedington stands on a hillside about four miles from Crewkerne and overlooking that town, and near Merriott, once known so well in connexion with John Scott, the great fruit authority, some thirty to forty years ago. Standing at the entrance lodge, the view over this fertile valley is magnificent, with the Quantock and Mendip Hills in the distance. The Taunton vale is famed for its wonderful soil and productiveness.

On one side of the entrance drive the park, which is finely wooded, slopes away to the village of South Perrott, and on the other side is a lawn upon which is planted a collection of standard Thorns. Among others I noticed varieties of the Cockspur or *Crus-galli*, *tanacetifolia*, and many more. Few things are more ornamental than aged Thorns when well placed, as they are here. Portions of the walls of the mansion are covered with choice climbers and shrubs. I noticed that the walls were not disfigured by nailing, but neat wire trellis was used to train the plants upon. On the west and south the land slopes, allowing one to obtain grand views of the naturally beautiful grounds.

Around both these sides is a terrace several feet high, and, although only of modern erection, the walls are being fast covered with many choice plants, such as Tea Roses, Escallonias, *Jasminum revolutum*, Clematis, and *Benthamia fragifera*. In one of the sheltered corners at the foot of the terrace wall I found at the time of my visit (end of June) the lovely *Carpenteria californica* in bloom. Although not a large specimen, it was in the best of health, and had many of its large white blooms still to open. Just below the south terrace is a small well-kept formal garden. In spring it is planted with bulbs, &c. The background of shrubs contains *Choisya ternata*, golden and silver Weigelas, large groups of *Deutzia scabra*, with one or two of the better Bamboos. On one of the grass slopes I was told that *Chionodoxa* thrived amazingly and made quite a sheet of blue in spring.

The pleasure grounds are not extensive, but contain many types of ornamental gardening. Here may be seen Roses in many forms. An arch connecting two trees cut down was very fine, simply a mass of single claret-red blooms. Other

free sorts were used in various positions with equally good results. Hard by grows a large plant of *Buddleia globosa*, with other shrubs behind showing up the orange-coloured blooms in a very striking manner. It is in such a process that bright flowering shrubs are seen to the best advantage.

Around the lake are to be seen many moisture-loving plants, and close to and running down to the water is a mass of Spanish Irises, their many coloured flowers rising out of the somewhat long grass making a choice bit of colour beside the water. Opposite this, on sloping ground, are some informal Rose beds, containing both Teas and Hybrid Perpetuals, with large plants growing up supports and over arches in full bloom behind. The best Penzance Briars and the Austrian Copper were well represented.

In another position near the Rose beds I noticed a large semi-circular bed containing many of the best hardy perennials. Delphiniums, Pyrethrums, Irises, &c., were in bloom, with numerous other plants to succeed them. What impressed me most was the absence of shades one so generally sees in this kind of gardening. Added to this, the arrangement was not of the usual kind. There were tall plants at the back, and the beds gradually sloped towards the front. Bulbs were planted among the tall things. This prevents those large bare spaces between the late-blooming plants, as the flowers fill them in spring, and the foliage of the bulbs has ripened off before the growth of the late perennials needs the space. Added to this, the formal outline is destroyed, and no portion of large beds of hardy plants could be said to be devoid of colour at any season of the year.

The water from the ornamental pond runs in an open stream for a considerable distance, and this is taken advantage of. Rocks and large stones have been placed on either side, and among these were planted a fine collection of hardy Ferns, *Spiraea plumosa*, and other tall-growing plants, also *Choisya ternata*, dwarf *Rhododendrons*, and polyantha Roses. In small nooks near the water were many moisture-loving plants.

At the time of my visit a very large plant of *Geranium arvense* was in full bloom, making a glorious piece of colour. At the top of the slopes the stones are so placed as to provide a home for many beautiful *Campanulas*, *Dianthus*, &c.

During the past few years a large piece of ground has been taken in from the park, adding much to the beauty and affording space to extend the natural gardening which the owner delights in.

In a somewhat shady spot I saw a fine group of *Lilium szovitzianum* nearly in bloom, many feet high and in the best of health. Mr. Birkenshaw told me it bloomed well last year. *Anemone robinsoniana* flowers well here, *Iris sibirica*, *Trollius*, *Saxifragas*, and a host of other things are thriving in the new grounds. It would be difficult to name a tithe of the beautiful things to be found in this most interesting garden. Turn in whatever direction you may you see things to interest, thus showing that the owner, Sir Henry Peto, Bart., is a true lover of his garden, and derives much pleasure from it. Nor must I omit to say his wishes are ably carried out by his gardener, Mr. H. Birkenshaw, who has had charge of the place about three years, and, although young, has had experience in some of the best schools of gardening. The kitchen garden, glass houses, and fruit garden are managed in accordance with the requirements of the place, to provide material for a small conservatory adjoining the mansion, and to afford out flowers, forced fruit, &c.

JOHN CROOK.

RECENT PLANT PORTRAITS.

The August number of the *Botanical Magazine* contains

Isoloma erianthum.—Native of Colombia. This is also known under the synonyms of *Gesnera eriantha*, *Brachyloma erianthum*, and *Kohleria eriantha*. A very handsome and free-blooming Gesneriad, with numerous pendulous tubular red and white flowers.

Sedum Stahlia.—Native of Mexico. This is a

curious member of the Stonecrop family with yellow flowers.

Chlorea longibracteata.—Native of Chili, the known as *Asarca sinuata*. This is a beautiful terrestrial Orchid, with a spike of white flowers resembling one of the *Satyria*.

Arisema japonicum.—Native of China and Japan. It is also known as *Arum Dracunculoides*. *Arisema latiseotum*. This is a plant of much botanical interest and little or no beauty. It has green flower spathes veined with white.

Cistanche violacea.—Native of Morocco and Algeria. It is also known as *Phelipaea violacea* and *Orobancha Phelypea*. This is a most curious and handsome-flowered parasite. It is found in the Algerian desert, growing straight out of the sand where it is brackish. The colour of the flowers as depicted in the plate is said to be possibly not quite exact, in consequence of deterioration of the specimen figured in transit to Kew.

The first part of the *Paris Revue Horticole* for August figures

Tacsonia manicata.—A most beautiful variety, which is indigenous to Ecuador and the Cordillera mountains, whence it was introduced by Monsieur E. André. It has medium-sized flowers, with scarlet ray petals and an azure centre. It is said to be very free flowering.

The August number of *Revue de l'Horticulture Belge* contains on a double plate the portraits of four tuberous Begonias named *Lafayette*, unequalled for bedding, for freedom of flowering, and brilliancy of colour; *Joli Robert*, a very pretty orange flower with yellow-striped centre; and an utterly worthless pale pink and yellow, whose names are not worth recording.

W. E. GUMBLETON.

CHRYSANTHEMUMS.

EARLY-FLOWERING CHRYSANTHEMUMS AT TAMWORTH.

IN view of the display which is to take place at Tamworth on September 28 next, a recent inspection of the collection in Mr. William Sydenham's garden afforded considerable interest. This grower hopes to have 4,000 plants in bloom on the date named, and those who can attend will see growing in this trial as many of the older sorts as it is possible to acquire. The Japanese sorts are in a part of the garden specially allotted to them. They are taller than the Pompon sorts, ranging as they do from about 18 inches to 5 feet in height. The plants in many instances have already developed their buds, and so well is the period of autumn covered by the early-flowering Chrysanthemums that their display is now beginning, and all being well, will be continued well into November next. Plants of M. Gustave Grunerwald and in its sports Henri Yvon, Louis Lemaire, and Mrs. R. Mollinson are already in flower, and, under normal conditions, will continue to bloom for a long time to come. The Mme. Marie Masse family of these plants, which includes Ralph Curtis (cream), *Rabbit Burns* (cerise), *Crimson Marie Masse* (chestnut-bronze), and *Horace Martin* (rich yellow), are already showing colour. The Japanese plants impress one with their greater value, chiefly because of their freer style of growth, and the greater variation in the forms and colours of their flowers. The whole of this magnificent collection of early-flowering Chrysanthemums is grown in the open air, and the plants are not disbudded. In this way it is hoped to convince visitors and others of the value of the plants for the outdoor garden where, by a natural system of culture, they may be seen to fulfil all that has been said of them.

The Pompon plants are much dwarfier and remarkable for their sturdy and branching growth. This type is almost stationary, and even those which have been acquired in recent years are either sports or were introduced many years ago and almost forgotten, but rediscovered by Mr. William Sydenham. The plants give promise of a

ree and effective display within the next two or three months. Special pains are being taken to make the forthcoming exhibition, conference, and inspection of the trial a complete success. A handsome silver bowl and numerous medals are to be awarded, and these, together with a paper and discussion, should ensure for the meeting a better knowledge of these useful plants than is the case at present. The laudable object of handing over to the Society for the Prevention of Cruelty to Children a certain proportion of the funds received from visitors to the trial and exhibition deserves to be heartily supported. Bolehall House Gardens are not a great way from Tamworth Station (both Midland and North-Western), and these stations are easy of access from all parts of the country.

D. B. CRANK.

BOOKS.

The Book of the Honey-Bee.—A useful guide to the beginner in bee-keeping, and illustrated with several excellent practical illustrations.

The Tree Book.†—Another of the half-a-crown books now being issued by Mr. Lane. We are not certain of the object of the book. If it is intended as a help in the selection of the most beautiful of trees and shrubs then it fails woefully. We honestly cannot discover any reason for its publication. The illustrations, however, are well chosen and of considerable beauty. We imagine

from its literary flavour that it is intended merely to while away a pleasant hour, and for this purpose it has its value. The few remarks about the way to distinguish trees are useful.

The Shakespeare Country.‡—This is one of the *Country Life* guide books, and is beautifully got up. It is a picture book of rare charm, and, besides being this, is an excellent guide to the Shakespeare country. There are maps and appendices illustrating the Washington and the Franklin countries. No more interesting or better illustrated guide to Stratford-on-Avon and its surroundings has appeared.

The Forest Flora of New Zealand. By J. H. Maiden, and published by authority of the Government of the State of New South Wales. Part III. deals with the Red Cedar (*Cedrela australis*), the Red Mahogany (*Eucalyptus resinifera*), and *Cryptocarya obovata*. The accompanying notes are of great interest. We congratulate Mr. Maiden upon his interesting work.

The Natural History of Plants.§—Parts XI. and XII. of this famous work deal with fruit formation, heteromorphism and alternation of generations, fungus galls or stems, galls, combination of parent characters, graft hybrids, and the origin of species, besides other matter of great botanical interest. We shall review the work when completed more elaborately than is possible when considering the separate parts.

Recently Recognised Species of *Crataegus* in Eastern Canada and New England.||—The descriptions given

in these pamphlets are of the first importance to the botanist. Mr. Sargent's notes are invaluable, and the present publications are of the greatest help to those interested, particularly in the *Crataegus* genus. Mr. Sargent writes that "Since the publication in *Rhodora* in February and April, 1901, of several species of *Crataegus* found in the Champlain Valley by Mr. Ezra Brainerd and other Vermont botanists, and in the neighbourhood of Montreal by Mr. J. G. Jack, numerous collections of these plants have been made in Canada and New England. These disclose new forms which have previously remained unrecognised." The forms described are *C. exigua*, *C. festiva*, *C. Pequotum*, *C. pilosa*, *C. conjuncta*, *C. cognata*, *C. littoralis*, *C. dissona*, *C. Jesupi*, *C. Stonel*, *C. Peckii*, *C. Bissellii*, and *C. Hargerii*. Part II. has descriptions of *C. excluda*, *C. robesoniana*, *C. polita*, *C. fretalis*, *C. Thayeri*, *C. contigua*, *C. irrasa*, and *C. fluviatilis*. Mr. Sargent has also written notes of the *Crataegus* genus in Newcastle County, Delaware, based on collections and observations made during the last three years in this district by Mr. W. M. Canby.

§ "The Book of the Honey-Bee." By Charles Harrison. John Lane. Price 2s. 6d.

† "The Tree Book." By Mary Rowles Jarvis. John Lane. Price 2s. 6d.

‡ "The Shakespeare Country." By John Leyland. Messrs. Newnes. Price 3s.

§ "The Natural History of Plants." Kerner and Oliver. Published by Blackie and Sons, London, price each part 1s. 6d.

|| "Recently Recognised Species of *Crataegus* in Eastern Canada and New England." By C. S. Sargent.

BANANA CULTURE

NOTWITHSTANDING that the Banana in the tropics is considered a fruit of much importance, both as an article of commerce and for the various ways it may be used as food, it is with us in this country only considered of secondary importance as a fruit grown under glass. As a rule it is grown only in gardens which contain large and lofty houses, doubtless for the reason that a considerable amount of space is considered necessary for the cultivation and full development of the plant. Home-grown produce is much appreciated on the table, both as a novelty and from the fact that the quality of the fruit is much better than that usually imported from abroad. The variety chiefly grown in England for fruiting is the Chinese Banana (*Musa Cavendishi* or *chinensis*), by reason of its dwarf habit than *M. sapientum* and its varieties. It is better adapted to cultivation under glass, and for the same reason is well suited for those who would care to make an attempt at Banana culture, but have only a limited amount of space at command, such as a plant stove or a similar structure, which, if from 10 feet to 12 feet high, would afford a good opportunity for growing one or two plants. *M. Cavendishi* may perhaps not be superior in flavour to one or two *M. sapientum*, but it is very good, having a melting buttery taste when thoroughly ripe. Banana plants are, moreover, not to be despised for placing in large conservatories among other subjects planted out.

Banana cultivation is not difficult, and can be easily practised either in borders, large pots, or tubs. The latter method is generally adopted where only one or two plants are grown, or where there is not the convenience for planting out. The pots or tubs should not be less than 2½ feet or 3 feet in diameter and about the same in depth. The bottoms should be perforated with several large holes for allowing a free passage to water; the pot or tub should also be raised 3 inches or 4 inches from the ground by inserting underneath a few bricks and allowing them to remain for the tub to rest upon. Commence then to put in the drainage, a depth from 5 inches to 8 inches being sufficient; lay over the whole of the drainage a turf, grass side downwards. The compost to be afterwards filled in should consist of good turfy loam, which has been cut and stacked for some time previously, and which, if of a moderately rich character, ought not to have the addition of any manure beyond a sprinkling of bone-meal. Excessively rich soil is fatal to stout, healthy growth, which is most essential to success. Feeding can be resorted to afterwards, when the plants are growing freely and their receptacles full of roots.

The preparation of beds or borders is much the same as that described for tubs; of the two methods planting out is more to be desired. Where a house is set aside and devoted entirely to the Banana, this is certainly the best plan to adopt; plants thus grown afford the finest clusters of fruit. In making the borders avoid large deep holes; 2½ feet to 3 feet deep should be sufficient. Provision must be made at the bottom of the border for a drain-pipe to be laid, and this ought to be so arranged as to carry all surplus water to a drain outside. In laying the drainage material a greater thickness is required for borders; in either case it is important that good drainage is given, for the Banana cannot stand a sour and water-logged soil.

PLANTING.—February is the best month for this, and also for giving fresh soil annually as a top-dressing to young plants. Commence by obtaining good, strong, well-rooted suckers, preferably those which have been grown on in pots for some little time previously; fill in the tubs or borders, as the case may be, for inserting the plants so that the roots near the surface will not be buried to a greater depth than 2 inches or 3 inches from the top, using for the purpose the compost before mentioned. As the work proceeds see that the soil is made quite firm, and if at all dry give a thorough watering; growth will be rapid. At the end of the growing season a resting period from four to five weeks should be given by allowing the plants to become somewhat drier at the root. Until then they require an abundance of water. At the end

of their rest they will throw out a fruit cluster, which when developed must at once be given support to prevent breaking down. Avoid wetting the plants overhead till flowering is over; when the fruit is set expose it as much as possible to sunlight. At the end of each cluster will be observed a barren portion; this should be cut away to add to the development of the fingers. After the latter are ripe and have been gathered the old plants are worthless and should be cut down. A sucker from the base should be allowed to grow. With regard to temperature, the conditions which govern an ordinary stove house in both summer and winter will meet their requirements.

The Banana is a voracious feeder, and this should be particularly noted with those plants which are in restricted root areas. They will benefit during the growing period by regular supplies of nourishment, given in the form of liquid manure or fertilisers once a week alternately, or the one form used regularly. As the fruit commences to ripen clear water only should be given.

R. BARTON.

SOCIETIES.

NEWBURY HORTICULTURAL SOCIETY.

THE forty-seventh exhibition of the above society was held on the 3rd inst., and was an excellent one in every way, but especially was this the case as regards cut flowers and fruit, while the vegetables were really excellent, considering the peculiar season, as in some places the crops are very poor. The large open

PLANT CLASSES

were not up to the usual average, but good things were staged in that for plants in bloom, the first prize going to Mr. Leith, Beaupaire Park Gardens, he having a very good six, the *Clerodendrons* and *Allamandas* being well bloomed; Mr. Surman, Donnington Park, was second; and the veteran Mr. C. Ross, Welford Park, a close third. For foliage plants, Mr. Leith was a good first, and here some large well-grown *Crotons* of good colour were shown. Though the competition was not strong, the plants staged were good, Mr. Ross being second with smaller specimens. Ferns also made a small class, but those staged were good. Mr. T. Leith secured the premier award. Colours are always a feature at this exhibition, and this year, though the plants were smaller than usual, they were well coloured and nicely grown. Mr. T. Surman was first; Mr. R. C. Norris second; and Mr. Ross third, with small but highly-coloured specimens.

Fuchsias, always a feature at this show, were a smaller class than usual, but the premier award was easily taken by Mr. T. Surman, Donnington Park, he having plants from 6 feet to 9 feet, grandly flowered; the second prize lot were much smaller. Mr. G. A. Cox had well-flowered plants and in good condition. Specimen plants in bloom were a strong class and very fine. Mr. T. Surman led with grand *Hydrangeas*, having some hundreds of flowers; Mr. C. Ross a good second; and Mr. F. Abery, Tilehurst, third. Mr. C. Ross had a very fine *Alcaecia macrochiza* well coloured. It is not often one sees this plant so well grown.

At this show a great feature is made of the stands decorated to show the best arrangement for conservatory decoration; the stands are low, and the prizes given for the best taste in arrangement. There were five competitors, and all were good, but some lacked colour, others finish. Mr. J. Howard, gardener to Lady Sutton, Benham Park, was a good first, having very light materials and good drapery, no part of the stage being visible. Mr. Norris was a close second, having some good *Orchids*; and Mr. C. Ross third; two other prizes being awarded in this class.

Very fine *Begonias* were staged, the amateurs having finer plants than the gardeners in several cases. Messrs. Clark and King had the best blooms in the single class, and Messrs. Hopson, Surman, and Norris in the double. In this class splendid plants were shown, and the competition was very strong. The plants for table decoration were well staged, Messrs. Leith, Ross, and Howard securing the awards in the order named.

ROSES

were a feature, and though some of the blooms staged showed traces of the late rainfall there were some good flowers.

In the nurserymen's classes Messrs. Cooling and Sons, Bath, were first with beautifully fresh blooms, Mr. J. R. Tranter, Henley, being a close second, and Mr. Mead, Bath, third.

In the private class Lady Sutton led with some beautiful Teas well set up, the blooms being fresh and of splendid proportions; Mr. H. Mead second, and Mr. H. Smith a good third.

The cut flowers, especially the twenty-four bunches of miscellaneous blooms, were well shown. Mr. T. Leith was a good first, staging in glasses and lightly arranged; Mr. W. T. Abery a close second, and Mr. D. Bosley third. Mr. King had the best *Zinnias*, Mr. Bingham being second, and Mr. Tranter the best *Carnations*, Messrs. Smith and Abery taking second and third prizes. There was no lack of entries in the cut flower classes. Messrs. Abery and J. F. Marchant staged very good bouquets, and Messrs. Tranter, Bosley, and Maher had the best *Dahlias*. The class for

TABLE DECORATIONS

was not so keenly contested as usual. Miss F. Harrold had the best table, using Iceland Poppies, Mrs. Attewell being

second, but using too much greenery, Mrs. C. Stradling was a close third, having red *Nasturtiums*, and, though a trifle low, the effect was charming.

FRUIT

was well staged. Grapes were exceptionally fine. For Bath Hampshire Messrs. Surman, Howard, and Lees were the successful exhibitors. In the white class Messrs. Surman, Howard, and Galt, Aldermaston Court, were the winners. In the Muscat class Messrs. Galt, Ross, and Maher secured the awards. Mr. Galt's Muscats being very fine. The best Pine-apple came from Mr. Howard, and Mr. Ross had the best dessert Apples (Mr. Gladstone being staged), and Stirling Castle in the cooking class. Some remarkably good Cherries were staged by Mr. Maher of Gattendon Court, and the best Peaches from Beaupaire Park and Mr. Ross. Nectarines from Messrs. Lees and Leith, Mr. Howard also staging good Orleans Plums, and Mr. T. Surman Greening, Mr. Cox having the best Pears. The best Figs came from Sir Alex. Arbuthnot (gardener, Mr. F. Mara), and small fruits were excellent, Messrs. Ross and Surman being the leading exhibitors.

VEGETABLES

were a feature. Mr. Ross had the best Tomatoes. Onions were very fine, Messrs. Mara, Surman, and Elford having grand dishes. Peas were better than usual, and Messrs. Howard, Leith, and Ross were the leading exhibitors. Other vegetables were equally good. The amateurs and cottagers made a splendid display.

Wild flowers and stands of garden flowers were very well done. The same remarks apply to the fruit and vegetables.

BASINGSTOKE.

A FINE day favoured the twenty-seventh annual summer show this year, held in Golding's Park, on the 3rd inst., and was in every way a success.

PLANTS

were more numerous than usual. For a group of miscellaneous subjects, arranged for effect in a semi-circle, there was only one entry, from Mr. G. Best, gardener to Mr. F. D. Leyland, The Vyne, Basingstoke. This, however, was well worthy of the premier award given to it.

For nine specimens in or out of bloom, Mr. W. Hunt, gardener to Mr. R. Moss, Fern Hill, Blackwater, was the most successful, winning quite easily with *Allamanda Hendersonii*, finely flowered, and *Acalypha sanderiana* with numerous blossoms as the leading subjects; Mr. J. Wasley, gardener to Mr. J. B. Taylor, Sheffield Manor, Basingstoke, was second with healthy examples of *Kentia fosteriana* and *Microlepis hirta cristata*.

Mr. Wasley was first for four foliage plants with healthy examples of *Kentia belmoreana*, *Adiantum farleyense*, and *Woodwardia radicans*; Mr. Hunt second.

For four flowering plants, these two exhibitors changed places, Mr. Hunt winning with *Allamanda Hendersonii*, *Lilium lancifolium roseum*, *Cassia corymbosa*, and *Acalypha sanderiana*, Mr. Wasley also staging well.

For a single specimen flowering plant, Mr. T. Russell, gardener to Mr. R. Blencowe, Shippett's House, Basingstoke, staged a *Fuchsia Elegans* fully 8 feet high, and profusely flowered, winning the premier award, Mr. Hunt with *Acalypha sanderiana* coming next.

Exotic Ferns were well shown. For six Mr. Wasley won first with *Microlepis hirta cristata*, *Davallia bullata*, *Adiantum farleyense*, *A. cardiochloana*, and *Davallia polytrichum*, Mr. Hunt, with admirable examples of *Adiantum canaliculatum* and *A. gracillimum*, was second.

Fuchsias were a grand display. For four, Mr. Russell staged *Charming*, *Marginalia*, *Rose of Castille*, and *Elegans* fully 7 feet high and grandly flowered, winning the premier award with ease; Mr. C. Kow, The Common, Basingstoke, was second. Table plants were finely shown, Mr. Best winning for twelve, with such produce as is desirable.

Colours were finely staged. For four Mr. Best won quite easily with grandly coloured plants, quite 5 feet high, and neatly trained pyramidal form; Mr. W. Green, gardener to Sir E. F. Bates, Manydown Park, second.

Liliums were well staged by Mr. Hunt, who won quite easily for four pots with *L. lancifolium rubrum* and *L. roseum* freely flowered; Mr. Tamplin, gardener to Mr. W. B. Mitchell, Down Grange, Basingstoke, second. Mr. Hunt had the best *Caladiums* in four plants; Mr. Best a close second. Mr. W. Green had the best show of tuberous *Begonias*, well flowered double and single varieties; Mr. Best second.

CUT FLOWERS.

For twenty-four Roses, distinct, there were few entries. Mr. Neville, gardener to Mr. F. W. Flight, Cornhill, Twyford, Winchester, was easily first with medium-sized blossoms quite well coloured for the season. For twelve distinct, Mr. Neville also won, and so he did for twelve Tea varieties, staging Mrs. E. Mawley, Anna Olivier, Maman Cochet, and Caroline Testout well. Mr. Neville also had the best *Carnations* and *Picotees* in twelve varieties. So good were they that we give their names for future guidance; Mrs. F. W. Flight, Myrab, Mrs. B. Bendas, Gromow, Guineas, Albata, Amphion, Alcibus, Argosy, and Countess Verulam; Mr. T. Tucker, gardener to Dr. Maples, Kingsclere, second. For six bunches of Sweet Peas, Mr. C. W. Broadmore, Winchester, won easily with Lady Ormsby Gore, Duke of Westminster, Countess Cadogan, and Dorothy Eckford; Mr. S. Clifton, Winchester, second.

Forty-two herbaceous cut flowers Mr. Hunt just won from Mr. Wasley with really good bunches of *Platyodon grandiflorum album*, *Coreopsis Eldorado*, *Pentstemon Newbury Gem*, and *Achillea The Pearl*. For a collection to fill 6 feet run of tabling Mr. Hunt also won the first prize with a showy exhibit; Mr. Tamplin second.

FRUIT

was plentiful and good. For a collection of six varieties Mr. Wasley had good Madrasfield Court Grapes, Melons, Figs, Peaches, Nectarines, and Oullin's Golden Gage Plum; Mr. Hunt second, with a good exhibit also.

Classes are here provided for Grapes rather freely. For no bunches Black Hamburg Mr. Tampion won with medium-sized well-finished examples; Mr. Hunt second. For two bunches black, any other variety, Mr. Wasley aged very fine Madresfield Court, and secured the premier award; Mr. Hunt with Muscat Hamburg gained the second place; Mr. Green with Gros Maroc coming next.

In a similar class for any Muscat variety Mr. Wasley again depended upon Madresfield Court, and won premier place; Mr. Hunt with Muscat Hamburg was second; Mr. Green with Muscat Alexandria third. Mr. Hunt staged really good Foster's Seedling for the first prize for two bunches white any variety not Muscat.

Melons were really good in quality. Mr. Tampion with Windsor Castle won for green flesh. Mr. Hunt with actress's Scarlet occupied a similar position in the scarlet and division.

Mr. Wasley with Peach Exquisite won first place for a dish of five; Mr. Best with Alexandria second. Pine-apple ectarine won also for Mr. Wasley the principal place for fruit.

VEGETABLES

were not so plentiful as usual here. Mr. Kneller, gardener to Sir Wyndham Portal, Malahanger Park, won both Messrs. Sutton's prize for six varieties and the society's prize for light dishes with excellent examples of Perfection Tomato, Alisa Craig Onion, Adman's Glory Potato, Intermediate Marrot, Marrowfat Pea, and Autumn Giant Cauliflower; Mr. Best a good second in both classes.

NON-COMPETITIVE EXHIBITS

were plentiful and interesting. Messrs. B. Ladhams, Limited, Shirley, Southampton, had a capital lot of herbaceous lowers; Galliardias Eownham's Queen, Primrose Gem, and 3. Ladhams were noteworthy; Rudbeckia hirta conspicua, Xeropepis Eldorado, and Lobelia cardinalis Andrew Barlow, in extremely richly coloured variety.

Mr. Pritchard, Christchurch, also had an effective bank of sturdy cut flowers. Gladioli of note were Mrs. Beecher, crimson with white throat; Baron Joseph Hulot, purple, very fine; Lafayette, cream with crimson throat; Blonde, edged with white throat markings; and Commandant de Serlach, bright blue; he had Tritomas Rufus and Lemon Queen also.

THE MIDLAND CARNATION AND PICOTEE SOCIETY.

THIS exhibition took place on the 6th inst. in the Botanical Gardens, Edgbaston, Birmingham, the entries being very numerous in all the classes, and in that for novices as exhibitors they represented a most satisfactory addition in point of numbers. It is very rare, indeed, that visitors can set up their Carnations beneath a canopy of growths of Bougainvillea glabra, which festoon a large part of the show house of the Botanical Gardens. The two planted-out examples are now gloriously radiant with mauve bracts and objects of great beauty. One sees Carnations at the best advantage at Edgbaston with their background of Fuchsias. It is a model place for such a show; the houses are extremely gay with foliage and flowering plants, and the grounds, always so neatly kept, are truly delightful just now. Mr. R. Sydenham's absence was sincerely regretted. He sailed on Saturday, the 1st inst., from Southampton on a voyage for a few months, which, it is fervently hoped, will restore his wonted vigour of mind and body. Kindly and sympathetic reference was made by Professor Hillhouse—at the luncheon which followed the making of the awards—to the work Mr. R. Sydenham had done for the society in the past, and a photograph was taken of the exhibitors, judges, and officials, which is to be presented to Mr. Sydenham in a suitable album, to which will be attached the signatures of all who form the group.

Opinions differed as to whether the quality of the blooms was in advance of those shown in London. We thought the white ground flukes and bizzarses brighter generally than those seen at the Drill Hall, while the white ground Picotees had a purity and substance not so fully possessed by those seen in London. The yellow grounds, selfs, and fancies were probably not so large, but many of them were highly refined. The judging was undertaken by a large staff. The task of asking the awards to the blooms shown in the single houses was a very onerous one indeed, so many blooms being tagged.

SELF CARNATIONS.

There were seven entries of twelve varieties, the first prize going to the lot of Mr. R. C. Cartwright, King's Norton (Mr. I. Rudd, gardener), who had in very fine character Ensign, beautiful white; Bomba, Sir Bevis, deep crimson shaded with maroon; Lustre, Comet, Seagull, a lovely bluish variety; Benbow, deep buff; Mrs. E. Hambro', Mrs. Colby harpin, shaded cinnamon; Germania, still one of the very best yellow selfs; Enehantrass, and Mrs. Prinsep, also a yellow self. Second, Mr. A. W. Jones, Sleehford, who had very fine blooms of Agnes Sorrel, Much the Miller, Sir Bevis, Dudley Stuart, Mrs. E. Hambro', Nubian, Tredegonde, Italian, Germania, Benbow, and Comet. Mr. C. F. Thurstan, Wolverhampton, was third, and four other prizes were awarded. There were twelve exhibitors of six selfs, and Mr. V. H. Parton, jun., King's Heath, treasurer of the society, was first with very fine blooms of Much the Miller, a very fine white; Nubian, Barra, Almoner, a yellow self; Agnes Sorrel, and Mrs. E. Hambro'. Second, the Rev. C. A. Gottwalt, Hedsor, Droitwich, who had Burns, bright pale red; John Pope, rosy pink, a fine-petalled flower; Mrs. E. Hambro', Richard Dean, a new purple self giving a deep shade of colour much wanted among the selfs; Glowworm, Avalanche, &c. Third, Mr. W. H. Twist, Yardley. All the eight prizes offered were awarded.

YELLOW GROUND PICOTEE.

There were seven exhibitors of twelve blooms, some slightly refined specimens being staged. The first prize went to Martin R. Smith, Esq., Hayes Common, Kent, who had in fine character Franklin, Badoura, Countess of Darnley, Daughter of Heth, Lady Avebury, Conquette, Countess of Verulam, Morgiana, Isolt, Aphrodite, Mrs.

Walter Heriot, a beautiful variety; and Danora. Mr. A. W. Jones was an excellent second; he had Lady Bristol, Hesperia, Gronow, Alcinous, Mohican, Lady St. Oswald, Badoura, Mrs. Hadley, and Gertrude. Mr. A. R. Brown, Handsworth, Birmingham, was third. Seven prizes in all were awarded. With six varieties, there being fourteen competitors, Mr. W. H. Parton, jun., King's Heath, was first; he had beautiful blooms of Gronow, Hesperia, Mohican, Alcinous, Lady St. Oswald, and Gertrude. Mr. A. Chatwin, Edgbaston, came second; he had excellent blooms of Onda, Lady St. Oswald, Daniel Defoe, Lauzan, Gertrude, and Hesperia. Mr. W. H. Twist, Yardley, was third.

Fancy Carnations in twelves were also very fine. Mr. A. W. Jones was placed first out of a number of competitors, with Voltaire, Queen Beas, Argosy, Oakley, The Gift, Alexandra, Ivo Sebright, Charles Martel, Eldorado, Brodeck, Achilles, and Ueberon. Mr. R. C. Cartwright came second with Argosy, Emperor, The Gift, Voltaire, Queen Beas, Amphion, Hidalgo, Euryalus, Charles Martel, Pagan, Duke of Alva, and Renegade. Mr. Martin R. Smith was third. In the class for six varieties there were several stands of fine blooms; unfortunately, particulars of this class were overlooked.

With twelve white ground Picotees, Mr. F. W. Goodfellow, Sutton Road, Walsall, was first, with rose edged Little Phil, rose edged Lady Louisa, purple edged Amy Robarts, red edged Mrs. Gorton, red edged Brunette, purple edged Mrs. Openshaw, red edged Thomas William, rose edged Fortrose, rose edged Mrs. A. Brown, purple edged Harry Kenyon, and purple edged Pride of Leyton; second, Messrs. Thomson and Co., Sparkhill, who had—differing from the foregoing—light rose Favourite, heavy rose Mrs. Beavick, heavy rose Mrs. Payne, heavy rose Mrs. Sharpe; Mr. C. F. Thurstan, Wolverhampton, was third. With six blooms, Mr. D. Walker, Kilmarnock, was first; he had heavy purple edged Fanny Tett, heavy rose Glio, Little Phil, Mrs. Openshaw, Light red edged Grace Darling, and Brunette; the Rev. G. C. Gottwalt was third.

With twelve white ground Carnations, Messrs. Thomson and Co. were first. They had P.F. Geo. Melville, C.B. Master Fred, P.F. Gordon Lewis, P.F.B. W. Skirving, P.F.B. George Radd, S.B. Robert Houlgrave, S.F. Guardsman, S.B. Robert Lord, S.F. Sportsman, S.F. Meteor, S.B. George, and R.F. MacRohan; Messrs. Pemberton and Son, Walsall, were second, and Mr. C. F. Thurstan third. With six varieties Mr. F. W. Goodfellow was first; he had Master Fred, George, Gordon Lewis, George Radd, Sportsman, and S.B. Admiral Curson; Mr. D. Walker was a close second, and Mr. E. Rosseter, Langley Green, third.

In the single bloom classes an enormous number of flowers were staged; the best scarlet bizzar was Robert Houlgrave; crimson bizzars, Master Fred and J. S. Hedderley; pink and purple bizzars, George Radd and J. S. Hedderley; scarlet flake, Sportsman; rose flake, Morton and Mrs. May; purple flake, Gordon Lewis; heavy red Picotee, Brunette; light red Picotee, Mrs. Gorton; heavy purple edged, Mrs. Openshaw and Amy Robarts; light purple edged, Pride of Leyton and Lavinia; heavy rose edged, Mrs. Sharp and W. H. Johnson; light rose or scarlet, Fortrose and Favourite; light yellow ground Picotee, Mrs. W. Heriot and Mrs. Durrant; heavy yellow ground Picotee, Gertrude; yellow ground fancy, Charles Martel, Brodeck, and Voltaire. Fancy, other than yellow ground: Delightful, bluish ground, heavily flaked with crimson-purple; Delightful, white, with slight stripes of rose; and Muletter, scarlet flaked with heliotrope; white self, Ensign and Mrs. E. Hambro'; buff self, Mrs. R. C. Cartwright; bright reddish salmon, Benbow; scarlet self, Etna and Isinglass; yellow self, Seymour Corcoran, Goliath, and Germania; rose self, Lustre and John Pope; dark crimson, &c., Roseleigh Gem, heliotrope; Cassandra, maroon, shaded crimson and purple; Lady Jane Grey, pale heliotrope, and Jocelyn, dark heliotrope.

Then came several classes for undressed flowers shown singly in vases. There were four classes, and they were well filled, but the flowers were generally unnamed. There were eight classes still for undressed blooms shown in threes. In addition there were three small classes for novices, in which the competition was good, the exhibitors being all promising recruits.

PREMIER FLOWERS.

The task of selecting these from the whole show was a very onerous one. Premier bizzar Carnation S.B. Robert Houlgrave, richly marked and coloured, shown by Mr. D. Walker. Premier flake, P.T. Gordon Lewis, a very fine bloom, shown by Messrs. Thomson and Co.

Floral decorations took the form of a shower bouquet of Carnations, and also ladies' sprays and buttonholes made up with the same flower. There was also a class for a floral arrangement of Sweet Peas set out on a round table 2½ feet in diameter.

PRIZES FOR SWEET PEAS.

Mr. Robert Sydenham's special prizes for Sweet Peas in twelve bunches brought a very fine exhibition of this flower, Mr. Thomas Jones, Euston, taking the first prize with the following in the best character: Lady G. Hamilton, Hon. F. Bouverie, Jeannie Gordon, Miss Willmott, Sadie Burpee, Dainty, Lottie Eckford, &c. Mr. J. F. Clark, Leicester, was second.

Certificates of merit were awarded to the following new varieties of Carnations: Daffodil, a pale pure yellow self of fine form and substance, from Mr. M. R. Smith, who also obtained the same award for the following: Mrs. W. Heriot, a beautiful light edged yellow Picotee, with a wire edge of rose to the deep yellow petals; Strongbow, a very fine yellow ground fancy in the way of Hidalgo, with less colour and not so dark; Lustre, a bright rose self from Mr. R. C. Cartwright; and to Ivo Sebright, already described, from Mr. E. Harrington.

There were several very attractive trade exhibits. Silver-gilt medals were awarded to Messrs. Hewitt and Co., nurserymen, Solihull, for floral decorations, cut flowers, &c.; to Messrs. B. R. Davis and Son, nurserymen, Yeovil,

for a very fine collection of Begonias, double and single; and to Messrs. Felton and Co., court florists, Hanover Square, London, for elaborate floral decorations and vases of Carnations. Large silver medals were awarded to Messrs. Dicksons, Limited, Chester, for a very fine bank of hardy flowers; to Mr. J. H. White, nurseryman, Worcester, for the same; and to Mr. Vincent Slade, nurseryman, Taunton, for cut zonal Pelargoniums. Small silver medals to Messrs. W. Cutbush and Son, for Malmalson Carnations; to Messrs. Simpson and Co., for Sweet Peas; to Mr. W. Sydenham and to Mr. W. L. Pattison, both for Violets; and to Mr. Watts, for Carnations.

SALTAIRE, SHIPLEY, AND DISTRICT ROSE SHOW.

THE recently-formed Rose society for Saltaire, Shipley, and district has made an excellent start. The first show, which was held on July 21, was as pretty an exhibition as one could wish to see, and visitors were delighted. It has been stated that the Saltaire and Shipley district is most eminently suitable for the cultivation of the Rose, both in regard to soil and climate, and the show seemed to favour that idea. Certainly the principal prizes were carried off by growers from a distance, but then this was the new society's first venture, and by another year local exhibitors may be more successful. At any rate, a healthy rivalry will do a lot of good.

The promoters were fortunate in securing exhibits from such famous growers as Dickson and Sons, Limited, of Newtownards, County Down, Messrs. Harkness and Sons, of Bedale, and Messrs. J. and R. Callam of Wakefield. These three firms carried all before them, and were, indeed, almost the only outside competitors. The awards of the judges—Messrs. W. Daniels, Crow Nest Park, Dewsbury, and Thomas Hartley, Ladye Royde Hall, Bradford—placed them in the order named. The Irish firm sent some lovely blooms, and easily carried off the premier prize in five classes, and also the National Rose Society's silver-gilt medal. The exhibits of Messrs. Harkness and Sons were very little inferior to those of Messrs. Dickson and Sons. Only the trained eye of a competent judge could distinguish between them. Messrs. Callam also showed Roses that were much admired for their form, colour, and size. In the local classes Mr. A. H. Rigg carried off the palm with some choice blooms, for which was awarded three first prizes. He also secured the National Rose Society's silver medal.

OPEN CLASSES.

Cut Roses, thirty-six blooms, not less than twenty-four varieties: First, Dickson and Sons, Limited, Newtownards, County Down; second, Harkness and Sons, Bedale; third, J. and R. Callam, Wakefield.

Twenty-four blooms, not less than eighteen varieties: First, Dickson and Sons; second, Harkness and Sons; third, J. and R. Callam.

Twelve blooms, not less than nine varieties: First, Dickson and Sons; second, J. and R. Callam; third, Harkness and Sons.

Twelve Tea Roses: First, Dickson and Sons; second, Harkness and Sons; third, J. and R. Callam.

Six bunches Roses: First, Dickson and Sons; second, Harkness and Sons; third, J. and R. Callam.

Six bunches Tea or Noisette Roses: First, J. and R. Callam; second, Harkness and Sons.

Sweet Peas, twelve bunches: First, H. Clarke and Son, Rodley; second, A. W. Whitelock, Ripon.

Bouquet Sweet Peas: First, W. Moorby, Saltaire; second, A. W. Whitelock; third, Dickson and Sons.

Twelve bunches hardy herbaceous flowers: First, R. Eichel, Gilstead; second, S. Margerison, Calverley.

Shower bouquet: First, Mrs. C. B. Shaw, Shipley; second, Dickson and Sons.

BRITISH PTERIDOLOGICAL SOCIETY.

THE annual meeting of this society was held in the Institute, Bowness, on Monday, the 3rd inst. There were present Dr. Stansfield (president), and a fair number of other members both local and general. The minutes of the previous annual meeting were read and confirmed, and the secretary's and treasurer's reports showed the financial affairs of the society to be in a sound condition. The president, in his opening address, made reference to the gaps which had been caused by death in the ranks of the society since he last met the members, and expressed his pleasure at meeting many old and some new friends. He congratulated the society on the publication of the book of "British Ferns," which had been compiled by members of the society, under the editorship of the late president, Mr. C. T. Drury, F.L.S., V.M.H., containing up-to-date lists, with details and dates of origin of all the best varieties of the various British species of Ferns. He urged the members to keep a watchful eye upon the book, so that in any future editions possible flaws might be corrected, and new matter bearing upon the subject be inserted, so that the book might continue to be the standard work of reference upon the subject. Several of the chapters on apocryph, &c., by Mr. Drury and others had never before been published in popular form, and would constitute a feature of great biological interest in the book. The election of officers for the ensuing year was then gone through, most of the old officers being re-elected, but with some changes among the vice-presidents and committee. The place of meeting for next year was again fixed at Bowness, this being fairly central for members from England, Ireland, and Scotland, as well as being an attractive place of meeting from its natural advantages and surroundings. Two papers by Mr. C. T. Drury, F.L.S., were read, in the absence of the writer, by the president, their subject being "Varietal Types of British Ferns" and "The Propagation of Varieties of *Lastræa montana*." The president also read a paper of his own upon "The Study of the Abnormal." All three papers were received with applause, and were evidently highly appreciated. A short discussion followed, in which Mr. Garnett, Mr. Phillips, Mr. Whiteside, Mr. Edwards, and others took part. Mr. Garnett expressed his strong belief in the influence of environment in the production of varieties,

and it was pointed out that there was a strong case in point in a beautiful crested form of Lady Fern which had been picked up last year in this neighbourhood by Mr. Phillips as a slightly abnormal but not crested form; during the year, however, that it had been under cultivation, it had developed into a very fine crested or cristata form.

The plant was exhibited by Mr. Phillips. Mr. Garnett exhibited a very promising plumose setigerum form of Athyrium, but the Fern was not yet mature, and it was thought desirable to defer naming it for another year. Mr. J. Loveday exhibited some very finely grown crested forms of A.f.f. setigerum; Mr. Henry Bolton, Mr. Loveday, Mr. Praeger, and others exhibited fronds all of more or less interest and importance. The sensation of the year, however, was a magnificent thoroughbred grandclope form of *Lastrea montana*, which had been found within a few days in Longleddale by Mr. Smithies. The certificate of merit of the society was awarded to this Fern under the name of *Lastrea montana grandclope Smithies*. It is singular that Mr. Smithies is the only previous finder of a grandclope form of *montana*; the present find, however, quite surpasses previous records of this type in this species, and is equal to the best grandclope forms found in other species. The meeting concluded with votes of thanks to the writers of the papers, which it was decided should be published in the transactions of the society.

BRISTOL AND DISTRICT GARDENERS' ASSOCIATION.

By the kind invitation of the Rev. G. F. Whidborne, this society held its monthly meeting at the Priory, Westbury-on-Trym, on Thursday, the 6th inst. About sixty members were entertained to tea by Mr. Whidborne, after which the company were afforded the opportunity of viewing the picturesque grounds and greenhouses, so admirably kept under the able management of Mr. Whitlock, the head gardener. The visitors were much struck with the cleanliness of the garden, lawns and pleasure grounds alike being well kept, while the absence of weeds was remarkable. Notwithstanding the bad season the summer bedding looked exceptionally well, while the visitors took special notice of several rows of Sweet Peas showing good bloom. The greenhouses, too, were much admired. Amongst the plants in bloom were noticed some beautiful *Torenia*, *Anthuriums*, and *Begonias*, while several *Orchids* lent a charm to their appearance with *Cattleyas*, *Dendrobiums*, &c., in excellent condition. Probably the most interesting to the visitors was a corridor wall 100 feet long and 80 feet high, covered with zonal *Geraniums*, which is certainly a sight not seen every day. Those planted some thirty years ago have thrived wonderfully, and are now one mass of bloom. Afterwards the members adjourned to a large room in the garden and proceeded with their meeting, when Mr. J. T. Curtis, gardener to Mr. W. Howell Davis, read a most practical paper on "The Eucharis," he being the successful competitor for the prize offered by Messrs. Parker and Sons for the best essay on the subject. He dealt in an able way with the cultivation of these useful plants—composts, watering, and feeding alike receiving attention. His paper was an excellent one, and on the motion of the Rev. G. F. Whidborne, he was accorded the congratulations of the society. Mr. Whidborne then presented five Royal Horticultural Society's medals to members for regular attendance. Mr. W. Ellis Groves proposed a hearty vote of thanks to Mr. Whidborne for his great kindness, and for the interest he has taken in the society, which was heartily received. This brought to a close a most enjoyable evening. Prizes for two bouquets of hardy flowers were awarded to Messrs. Ambrose (first) and Coombs (second).

UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

The monthly committee meeting of this society was held at the Caledonian Hotel, Adelphi Terrace, Strand, on Monday evening last. Mr. Thomas Winter presided. Seven new members were elected, and one other nominated. Four members are receiving sick pay, and eight are on the benevolent fund at the present time. Three other members have been relieved from this fund during the year.

OBITUARY.

MR. J. S. HEDDERLEY.

WHILE at the Midland Carnation show at Birmingham on the 6th inst. I was made aware of the fact that my old friend John S. Hedderley, of Sneinton, Nottingham, had recently passed away at a great age. I met him for the last time three years ago at the Birmingham Carnation show, and though failing in strength his interest in the Carnation, which was his favourite flower, was as keen as ever. When fifty years ago Derby and Nottingham were the centres of Carnation culture in the Midlands, J. S. Hedderley was associated with E. S. Dodwell, J. Holland, J. Bayley, W. M. Hewitt, Thomas Lord, J. Hepworth, and others in promoting the culture and exhibition of the flower. He outlived all his contemporaries of that period. His name is handed down to posterity through his association with scarlet flake Carnation Sportsman, which originated as a sport from S.B. Admiral Curzon in 1855, which, as Mr. E. S. Dodwell remarks, "went at one bound to the top of its class," and in the following year, on

the occasion of the holding the annual exhibition of the National Carnation and Poinsettia Society at Birmingham, Sportsman took all the prizes in the class for single blooms of scarlet flake Carnations. Sportsman, which is brilliantly flaked with scarlet on a white ground, has held its own for nearly half a century, and on the occasion of the recent exhibition of the National Carnation Society at the Drill Hall, on July 21, it took the first prize as the best scarlet flake, and at the recent exhibition of the Midland Carnation Society it was awarded the four first prizes in a similar class. The success of the sport was ever a matter of great joy to Mr. Hedderley. He also raised a beautiful rose self named Royalty, which I think must be identical with the one that Mr. J. R. Upton is in the habit of setting up on long stems in vases at the meetings of the Royal Horticultural Society at the Drill Hall. Mr. Hedderley cultivated Roses and other popular flowers. He was a born florist, and was full of pleasing reminiscences of men and flowers. Alas! scarcely one remains of the florists who made floriculture so popular in the Midlands half a century ago! R. DEAN.

Royal Horticultural Society.—The next fruit and flower show of this society will be held on Tuesday next, the 18th inst., in the Drill Hall, Buckingham Gate, Westminster, 1—5 p.m. A lecture on "Hollyhocks" will be given by Mr. Webb at three o'clock. At a general meeting of the society held on Tuesday, the 4th inst., twenty-five new Fellows were elected, among them being Sir Joselyn Gore Booth, Bart., Colonel the Hon. G. Napier, Major-General H. H. Lee, and Major Bernard J. Petre, making a total of 1,070 elected since the beginning of the present year.

Dahlia show, September 1 and 2. The Royal Horticultural Society will hold a special exhibition of Dahlias on September 1 and 2, in conjunction with the National Dahlia Society, in the Drill Hall, Buckingham Gate, Westminster. At this meeting only Dahlias can be shown, with the exception of flowers, fruits, &c., for certificate. All Dahlias, including those shown for certificate, must be left on exhibition until 6 p.m. on the second day, but other plants may be removed as usual. For schedule of prizes see the Royal Horticultural Society's "Book of Arrangements" for 1903, pages 89 to 93, or separate schedules can be obtained on application to Mr. P. W. Tullock, Sterndale, New Church Road, Hove, Sussex, secretary to the National Dahlia Society. A lecture on "Judging Cactus Dahlias" will be given on September 1 by Mr. C. G. Wyatt at three o'clock.

Nature Study Exhibition.—A nature study exhibition will be held at the offices of the Civil Service Commission from October 30 to November 3. Lord Avebury is the chairman of the general committee, and the patrons include the Duchess of Teck, the Archbishop of Canterbury, the Duke of Argyll, Lord Strathcona, and Sir William Hart-Dyke. Upwards of seventy educationalists, consisting of members of Parliament and representatives of the various education bodies and natural history societies, form the committee. A provisional list of prizes has been compiled, setting forth those which have been offered for competition by private individuals and many of the more important firms of publishers. This, with the prospectus and regulations, may be obtained from the secretary of the Home Counties Nature Study Exhibition (Mr. Wilfred Mark Webb, F.L.S.), 20, Hanover Square, W.

Royal Botanic Society.—The annual meeting of the Royal Botanic Society of London, was held on Monday last, at the Gardens, Regent's Park. Mr. C. Brinsley Marlay, who presided, congratulated the Fellows on the improved financial position of the society. The accounts showed a slight profit upon the year's working, although a considerable amount had been expended on repairs. Owing to the damage to plants caused by the frequent use of gas in the conservatories, the introduction of electric light could not long be delayed, so that this and the work of developing scientific instruction would entail considerable cost. He, therefore, hoped that the Fellows would introduce

new members, and thus enable the society to carry on a work which was of the utmost importance both from a public and scientific point of view. The report was seconded by Sir William Collins, M.D., and unanimously adopted.

The Crosefield Conservatory at Warrington—An interesting ceremony.—It will interest many of our readers to know that the grand pyramid Camellias at Walton Lea, Warrington (probably the finest in the kingdom), have been removed in almost perfect safety to the new park presented by the late Mr. George Crosefield, in which is situated the handsome new conservatory given recently by Mrs. John Crosefield. There was a large attendance at the opening, which was presided over by the Mayor and Mayoress, Mr. and Mrs. J. C. Parr, Mr. Crosefield, in declaring the conservatory open, spoke of the great interest which the late Mr. Crosefield took in his Camellia trees, and she was glad to think that under the care of Mr. Parker, the head gardener at the park, all the trees had been successfully removed with two exceptions. She hoped that Warrington might soon have its winter garden, and that the poorer people might enjoy the benefit of the conservatory. The Mayor, accepting the gift on behalf of the town, referred in terms of warm praise to the kindness of the donor and the Crosefield family, saying that the gift would be highly valued by the townspeople. He then presented to Mrs. Crosefield a handsome silver Rose bowl, which was gracefully acknowledged by the recipient, who afterwards, with the remainder of the company, inspected the park and conservatory.

The Raspberry-Blackberry The Mahdi.—At this season, when the Raspberry is getting scarce, this new hybrid will be most valuable in filling in the gap between the early and late Raspberries. Messrs. Veitch have certainly given fruit growers a most valuable addition in the new Mahdi, and as it fruits grandly there will be no fear of failure, as from my own observation it thrives with very simple treatment, and is not at all fastidious as to soil. This new race of fruit is most interesting, as, although allied to the common Blackberry, the fruits are equal to the Raspberry, though the growth resembles the Blackberry. In very many gardens Blackberries, especially the American forms, are not a success, but this is the case with the new cross, as the plant is a good bearer, makes a delicious preserve, and for taste is excellent when mixed with Red Currants. It is harder than the Raspberry, and this is a great gain.—G. WYTHES.

Tufted Pansy Walter Gale.—Tufted Pansies of a blue colour are not numerous, and because of this novelties possessing all the points that go to make a good bedding plant should be made a careful note of. The raiser (Mr. William Sydenham) of this variety describes the colour of the flowers as purple-blue, but the blue is quite a new and distinct shade, and when a number of plants are grouped together the remarkably free display is very pretty and effective. Each flower is borne on a footstalk of good length and perfectly upright, so that the flowers stand out well above the foliage. The plant is of free growth, has a good constitution, and deserves to be freely grown where tufted Pansies are valued.—D. B. C.

Itea virginica.—Though by no means showy, this is a decidedly pretty flowering shrub, and one that, owing to the interest just now taken in flowers for butterflies, deserves a special note, for of all shrubs it is as far as I know the most attractive to the bright-coloured members of the Vanessa family, though, as recently pointed out by Mr. Wolley Dod in THE GARDEN, there is no other plant to compare in this respect with *Sedum spectabile*. This *Itea*, which is a native of North America, has been long known in this country, but it is a shrub very rarely met with. It forms a compact, freely branched bush, seldom more than 4 feet or 5 feet high. The Privet-like leaves are dark green in colour, while the small whitish flowers are disposed in dense spikes as in some of the shrubby Veronicas. These spikes are from 4 inches to 5 inches long. A cool, moist soil is essential to the successful culture of this *Itea*.—T.

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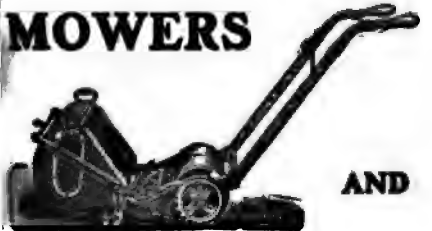
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NOW ON

Disastrous fruit season.—In its annual review of the hard fruit crops in Kent the *South Eastern Gazette* states that the elements have again successfully conspired to ruin them. Pears, Plums, and Damsons yielded a crop much below a quarter of the average, and Apples promise a somewhat similar falling off. One grower gives an instance of the situation. In 1901 his orchards yielded 5,928 half-sieves of Cherries, and this year he could gather but 308 half-sieves. Another season like the present cannot be recalled by the oldest grower.

Uselessness of Malmesbury Carnations.—At the risk of being taken to task by some of your readers, I must say that I fail to see the merits of this class of Carnations, unless size alone is a merit, and on this subject the editor of *THE GARDEN* will perhaps have something to say in his paper to be read at an autumn meeting of the Royal Horticultural Society. Why these Carnations are so popular is a puzzle to me, unless it is that the votaries of fashion follow one another like sheep along a beaten track, for to my mind at least the huge mis-shapen flowers are positively ugly, and, except their fragrance, entirely without one redeeming feature. How rarely do we see the foliage in good condition, and then the returns in the shape of flowers are most inadequate to the space the plants occupy, the length of time necessary to obtain flowering specimens, and the constant attention required. I have seen many examples this season (and at exhibitions too) in which the plants grown in 6-inch pots carried but a single bloom, a poor return for the trouble taken. There are now so many beautiful Carnations that we can well spare these monstrosities, and when the Malmesbury section goes out of fashion few will regret their loss, and the gardener with inadequate accommodation who is called upon to grow plants equal to his neighbour with a house or houses for these Carnations alone will rejoice.—T.

Tufted Pansy Lady Warwick.—This is a grand new blue self grown in the Tamworth nurseries. The flowers are large and almost circular in form, they also have plenty of substance, which is an advantage in hot weather. The plant is of good habit and constitution, and each flower is borne on a stout erect footstalk well above the foliage. As to its freedom of flowering the plant left nothing to be desired.—D. B. C.

Tufted Pansy J. B. Riding.—Little is known of this plant, and yet no tufted Pansy (Viola) is so largely grown in our public parks and open spaces. Tufted Pansy J. B. Riding is the result of a sport from another distinct and pretty variety, William Nick, and occasionally one may see the sport repeating itself on plants of this variety. Mr. George McLeod, a most enthusiastic amateur gardener, fixed the sport in his small garden at Chingford some twelve or thirteen (more or less) years ago. I have seen it growing in many situations and aspects, and in diverse soils. Some years ago it was looking well at Kew, and more recently in Regent's Park and Waterlow Park, but I have never seen the plant, and flowers too, look better than last week in Mr. William Sydenham's garden at Tamworth. One bed, some 50 feet long by about 5 feet broad, was most effectively planted with it, the colour of the flowers being a bright shade of rosy purple. The plants were most robust and were flowering profusely.—D. B. CRANE.

BROWN ROT OF FRUIT.

(*SCLEROTINIA FRUCTIGENA*, SCHROTER.)

The Board of Agriculture recently issued a most important leaflet descriptive of this fruit rot. It is as follows:—

"This is undoubtedly one of the most general, and also the most destructive, of diseases against which the fruit grower has to contend. It attacks Apples, Pears, Plums, Cherries, and Peaches, and is also not uncommon on various wild fruits belonging to the order Rosaceae, as Bullace, Crab, &c.

"To the ordinary observer this disease first attracts attention when it appears on the fruit under the form of brownish scattered patches on the skin. This is followed by the growth of dull grey tufts

(the so-called *Monilia* fungus), which are usually arranged in irregular concentric rings. These grey tufts are composed of dense masses of spores arranged in long branched chains. The fairy-ring arrangement of the fungus is most evident on Apples and Pears; on Plums, Cherries, and stone fruit generally, the grey tufts are irregularly scattered over the surface.

"Although most obvious on the fruit, the fungus usually first attacks the leaves, where it forms thin, velvety, olive green patches. The spores from diseased leaves are washed by rain, or carried by insects, on to the surface of the young fruit, or not infrequently the flowers are also inoculated with spores derived from young leaves; and in many instances where brown and shrivelled blossoms are attributed to the action of a late frost, the true cause is in reality due to the *Monilia* fungus.

"In those instances where the disease has been allowed to follow its course undisturbed for some years, the young shoots of the trees are also attacked and killed during the first or second year. The fungus develops rapidly on such dead twigs, and furnishes a ready supply of spores, which are mature during April and May, just when the young leaves and blossom are most susceptible, and wholesale infection results.

"Fruit attacked by this disease does not rot and decay, but becomes dry and mummified. Such fruit often remains hanging on the tree until the following season. Whether it does so or falls to the ground, it is practically unchanged until the following spring, when its entire surface becomes covered with a copious crop of spores, which are dispersed by various agencies, and the disease repeats itself.

"It has long been suspected that the *Monilia* represented but one stage in the life-cycle of the fungus; this supposition has proved to be correct, the second or ascigerous form of fruit having been found growing abundantly on old half-buried Peaches in several orchards in different parts of the United States, where the fungus proves quite as destructive as with us.

PREVENTIVE MEASURES.

"All dead twigs and shrivelled fruit, whether hanging on the tree or lying on the ground, should be collected and burned during the winter. After the diseased fruit and dead branches have been removed, the trees and also the ground should be thoroughly drenched with a solution of sulphate of iron, prepared as follows:—Sulphate of iron, 25lb.; sulphuric acid, 1 pint; water, 50 gallons. Pour the sulphuric acid upon the sulphate of iron, then add the 50 gallons of water by degrees. A barrel is the best vessel to use; a metal vessel must not be used, as it would be acted upon by the sulphuric acid.

"Spraying with the above solution should be done in January or February, before the leaf-buds begin to swell in the least, otherwise the foliage and blossom will be destroyed. When the leaf-buds are expanding, and at intervals as required, the trees should be sprayed with quite weak Bordeaux mixture. The above line of treatment must be followed for at least two seasons."

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make *THE GARDEN* helpful to all readers who desire assistance no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF *THE GARDEN*, 20, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Names of plants.—*Invergloy*.—*Dracocephalum* (*Physotelia*) *virginica*.—G. D.—*Achillea* *Eupatorium*.—K.—The plants were unfortunately much withered when received, but we have done the best we can. The white

flower appears to be *Campanula alliarifolia*, the other *C. latifolia* var. *Houttei*. When you send again would you kindly number the specimens?

Flag Irises diseased (E. LLOYD EDWARDS).—The spots are caused by a fungus, which in some districts is very troublesome. The attacks are usually more prevalent in cloudy and thundery weather, and a close, somewhat oppressive, atmosphere appears favourable to its attack. You may certainly pull off and burn the worst of the leaves, and as a precaution you may employ, another year, a sulphur solution and syringe the plants. We do not say this to prevent the attack; it may serve, however, to modify it. At present there is no known cure, and, apart from the disfigurement, we have not noted any great harm to the plants. It is not necessary to destroy the Irises.

Curious Foxgloves (W. A. P.).—There is nothing unusual in the flower, as this abnormal development frequently occurs in the Foxglove, sometimes the bloom assuming large proportions.

Cyclamen Coum falling (Mrs. WEDGWOOD).—It is not easy to give a reason for the repeated failure, as you give no particulars of where or how planted, the class of soil, and such like. This group prefers a light and stony soil or one freely charged with old mortar. Shade, too, is important, and should not be overlooked. You do not say if your garden soil is heavy or light. The best way to establish a group of these Cyclamens would be to make the soil quite light by the addition of sand, leaf-soil, and old mortar, and if the position inclines to wetness generally you should raise the plot of ground a few inches higher than its surrounding portion. We can only account broadly for its failure by some local unsuitable condition, and a wet condition of the lower soil is much against these plants. In few weeks you will be able to plant dry roots of these plants, and in a spot such as that indicated there should be no further trouble. The near proximity of tree or shrub root or in company with Ferns, will give you an idea of the company these plants most prefer.

Copper and lime solution (Dr. Crookes).—The copper and lime solution, commonly known as "Bordeaux mixture," is made as follows: Dissolve 100z. of sulphate of copper in a little boiling water and pour it into a wooden tub. Then add five gallons of water in another vessel, and 160z. of lime, and when cool pour it into the copper solution and mix together thoroughly. Its strength may be tested by holding the blade of a penknife in the mixture for a minute or more; if any of the copper adheres to the blade more lime should be added, or the mixture may injure the foliage. Another test is to place some of the mixture in a saucer and blow steadily upon the fluid for half a minute; if a very fine scum like oil forms on the surface it is all right. If not, add more lime.—G. S. S.

Yew leaves turning brown (C. E. F.).—I have very carefully examined the shoots of Yew, and cannot discover any cause for the death of the shoots; there does not appear to be any fungus or insects on them. I should take off the diseased shoots and burn them in case there is something in or on them in the way of spores which I have been unable to discover. As to the mildew on the Hawthorn leaves, it is probably the "apple powdery mildew" (*Podosphaera Oxycanthae*), which has not been found on the Yew. The Hop mildew is quite a different fungus, *Sphaerotheca castagnei*, so that you need not fear that on the Yew spreading to the Hop.—G. S. S.

Diseased Potatoes (W. A. SMITH).—I could not find any insects or fungus upon the haulm, nor could I find anything the matter with the stems; the leaves and the appearance of having been sprayed with some fungicide. Is it possible they had, and that the mixture had been used too strong?—G. S. S.

Diseased Lilies (M. P. FORSTER).—Your Lilies are attacked by a fungus commonly known as the Lily disease fungus, belonging to a genus of fungi which at various stages of their development assume different forms, which at one time were considered to be distinct species and even to belong to different genera, consequently they are known by the name of *Sclerotinia* or *Botrytis*. The diseased leaves or stems should be cut off and burnt and the rest of the plants sprayed with Bordeaux mixture, and the ground wetted with the same mixture round the roots. Next season if the disease again shows itself immediately spray with the mixture, and again, say, once a week while there are any signs of the complaint.—G. S. S.

Delphinium diseased (V. L., Stockholm).—It is so seldom that the Delphinium suffers from mildew that we fear the attack is due to local influence, of which we have no information. The general growth of the plants is quite robust, and we surmise the plants are weak from some cause or other. As the flowering season is now past you may cut away all the stems and burn them. In March, 1904, we would recommend you to replant the entire lot, first digging the ground 2 feet deep, putting in large quantities of manure, and dividing the plants if necessary. At a seasonable time we may deal with their cultivation in a separate article. The mildew may be checked by spraying the plants with sulphur in solution.

ERRATA: "The Tulipae."—For Tulipa phoranensis please read T. Orphanides (page 77, August 1).—In our issue of the 18th inst. we have misplaced a paragraph in the notes on "Indoor Garden." The paragraph headed "Tulips" should have followed the paragraph headed "Roman Hyacinths." Placed as it is it is quite confusing.

Mr. H. Bennett.—We regret to hear that Mr. H. Bennett is leaving the well-known gardens of Sir John Heathcoat-Amory, Bart., Knightsbridge Court, Tiverton, Devon, on account of bad health. These gardens are noted for their hardy flowers.

* * * The Yearly Subscription to *THE GARDEN* is: *Island* 15s.; *Foreign*, 17s. 6d.

THE GARDEN

No. 1657.—VOL. LXIV.]

[AUGUST 22, 1903.]

A STEP FORWARD.

A YEAR ago, and then not for the first time, we called attention to a scheme which, under the title of "Garden Cities of To-morrow," has of late been brought powerfully to the front. The exodus from the rural districts, scarcely noted in its early beginnings, has by degrees arrived at such alarming proportions that town folk and country folk alike unite in deploring its consequences; while political economists, taking a wider outlook, discern the cloud, no bigger than a man's hand, of national decay rising in premonitory mist on the horizon of national prosperity. It is much easier, as we all know, to sit down with folded hands and utter gloomy forebodings than to suggest a practical remedy. It is not surprising, therefore, that the scheme of intermarrying town with country, so ably put forward by Mr. E. Howard, should have attracted a sympathetic following from amongst earnest-minded men and women of all shades of political and religious opinion. Certain it is that the past year has seen a great advance in a great industrial movement, and we can no longer regard the project as being merely "in the air." Already we are on the eve of learning that a suitable site has been obtained, and we may be sure that the active promoters of the enterprise, who are practical business men, will not rest until one such garden city as has been foreshadowed shall have become an accomplished reality.

We could wish for a name more worthy of a noble inspiration. Garden City is too suggestive of Yankeedom to be quite in accord with good English taste. But the idea is grand and magnetic, inasmuch as it brings a sense of relief to the awakening public conscience. Most of our readers, all of whom we may assume to be garden lovers, rejoicing in the freedom of clean air and light and the beauty of tree and flower, must sometimes give a pitying thought to the crowded, airless courts and alleys, haunted by pale-faced slum children who have at hand no better playground. A vision, doubtless, rises now and then to disturb the peace and obscure the brightness, if but for a passing moment, of well-appointed homes. It is a vision of huge tenement buildings—erected at enormous cost and with every best intention—yet found to be utterly inadequate to give healthy and happy house-room to the decent folk who overflow into them even before they are fit for occupation.

Most gladly and thankfully, therefore, do we all turn to the comfort of a new hope and the prospect of a better future for some, at least, of the toilers, who meanwhile are condemned to crowd into such congested areas. It is hard—perhaps impossible—for those who all their lives have enjoyed, as a matter of course, the luxury of more or less breathing space, to realise what it would mean to be transplanted from a cramped-up family abode of two or three rooms in grimy surroundings and set down in a fair-sized home occupying 20 feet by 130 feet, and giving scope for a strip of garden ground. This, we understand, is proposed as the minimum space for the accommodation of a family of five or six members. Mean and narrow as it might seem to many of us, it would be like heaven itself to thousands of our working brothers and sisters. Let us at least wish the movement well and bid God-speed to those whose far-seeing energy has begun to lift the curtain which seemed too heavily weighted to rise, and who have already let in the dawn, let us hope, of an ever-brightening day.

The pivot upon which the whole enterprise turns is not the town and its buildings so much as the land to be acquired and its apportionment in perpetuity under wise and competent authority. Given space and ordinary natural advantages, the laying out of public parks and gardens presents no great difficulty. It has been done many times, and done well, and to maintain order and beauty is a matter which may safely be left in the hands of the municipal rulers to be. But it does occur to a practical mind that a goodly number of private garden plots suddenly put into the uncontrolled tenancy of a town-bred population might be doubtfully well managed as a whole. Even rural England is sometimes not altogether lovely in the matter of well-ordered gardens. One cottage may be a picture, embowered in Roses and Woodbine, with brightly-coloured flower borders half hiding the well-kept beds of vegetables, while the next-door neighbour may care for none of these things, and may leave the precious soil to become a nursery of noxious weeds. In a well-equipped organisation calling itself a garden city control of some sort would seem to be imperative, yet not so rigid as to interfere with individual independence—the Briton's birthright.

A modification of some of the Continental methods of public instruction in cultural and kindred matters might well be included from

the first in the municipal enactments. An educational garden, supported by small periodical payments, not necessarily compulsory, with one or more district gardeners to give help on occasion to those who, either from ignorance or incapacity, might be in need of it, would be a boon to many a working man and woman, whose up-bringing had failed to qualify them for quasi-rural life. In the present connexion we offer this as a mere suggestion in the interests of a comprehensive and well thought-out scheme, which, we trust, may before long make a prosperous start. But we also hope in time to see educational gardens of one kind or another become general throughout the length and breadth of the land, so that it may be true of our own country, as of many others, that not a square yard of garden ground is wasted, but turned to the best account by a thrifty people.

THE FRUIT CROPS.

In an experience of fifty years I am unable to recollect such a general failure of fruits as we have to record in 1903. In former years, where one district has failed, another has garnered a full crop; but in the present season the failure seems to have been general throughout the British Isles. Dealing first with what are called in Kent "the hard fruits," except in sheltered gardens with suitable walls, the Pear crop may be considered an absolute failure, even those varieties which we have hitherto considered as annual bearers are barren in the open. The only sorts which have a sprinkling in our nurseries are Colmar d'Ete, Emile d'Heyst, and Louise Bonne of Jersey. In the market orchard varieties, the "Chalk" or Crawford and the Hessel have a sparse crop, though the Pear blossom this year was exceptionally fine. Even trees recently moved, and therefore carrying thoroughly ripened wood, were unable to resist the long continued wet, cold, and frost of May and June.

Coming next to Apples, although they flowered much later than Pears, the trees are perfectly bare in the Kentish orchards, except here and there where they were sheltered from the cold winds. Both those Apples which flowered early, as well as those which blossomed very late, have equally failed, and probably the largest crop of any kind will be the Old Keswick Codlin. It is notable, however, that Worcester Pearmain is bearing very well; the reason of this may be because the tree is naturally thin and woody, and the fruit is gathered sufficiently early to allow the tree to recover itself, and it is also a sort which ripens its wood early. Here and there fortunate growers have secured very high prices for their orchards, but, as in some cases the trees have been neglected, and in others thoroughly

well cultivated, it is difficult to arrive at the cause of this discrepancy.

Owing, therefore, to the fact that Apple trees moved in the years 1901 and 1902 are carrying more fruits than trees established for a longer period, we may presume that the loss of fruit in some cases is due, not only to the spring frosts, but also to the unripened state of the wood, owing to the wet season of September and October, 1902, when the wood, being sappy, was severely tried by the sharp frosts we had in November, and to the same cause we may also attribute the curl which attacked the foliage of Peaches and Nectarines on walls.

To return to Apples, the following sorts are bearing more or less fruit: Allen's Everlasting, Allington Pippin, Baumann's Winter Reinette, Ben's Red, and an introduction of our own from Cornwall, Bielo Borodawka, Bismarck, Cardinal, Cellini, Colonel Vaughan, Duchess Favourite, Early Victoria, Ecklinville, Foster's Seedling (very heavy crop), Golden Spire, Grenadier, Hornead Pearmain, James Grieve, July Pippin, Keswick Codlin, Lady Sudeley, Lane's Prince Albert, Lord Derby, Lord Grosvenor, Pott's Seedling, Sanspareil, Seaton House, Stirling Castle, Yellow Ingestre, Tower of Glamis, White Transparent, and Worcester Pearmain, but on none of these is there what we may call a good crop, and in many cases the fruit is much spotted with fungus.

In a garden laid out by my firm in 1901-2 the Apple trees are bearing extremely heavy crops. Arguing from this fact, it is quite evident that if we wish to secure a regular crop of Apples a portion of the garden trees in every establishment should be annually lifted and root-pruned in order to encourage that ripeness of wood which alone seems able to resist inclement spring weather. This root-pruning cannot, of course, be carried out in market or orchard culture, but if these trees, both young and old, were gone over in August and all superfluous inside shoots were removed, and also a thorough winter pruning and thinning of the boughs were carried out, the sun and air thus admitted would no doubt tend to the same end as root-pruning, and thus secure a valuable crop in inclement seasons. As what little hard fruit there is this year has sold for two and three times its usual price, it will amply pay the growers to give their attention to this matter.

To come now to other fruits, the most important are Plums. As far as my experience has gone, these are bearing best this season where they are on grass land, that is to say, where the trees are not making that strong, sappy growth which they do in cultivated ground. Naturally, position and shelter may also have saved a crop in some favoured localities, but taken all round it is the shortest crop ever known. The only orchard sorts which appear to be bearing are The Czar, Monarch, Pond's Seedling, Diamond, Early Orleans, Prince of Wales, and Jefferson. The Gage tribe appears to be an entire failure, as also are all the Damsons and Bullaces.

Cherries never bloomed more profusely, but the continued cold weather prevented any development, and though many sorts reached the stoning period, they fell off at that time. Here and there orchards produced a quarter of a crop, but there must have been many acres where not a ladder was put into the trees. Curious to say, however, Morello Cherries in the open have borne well.

Gooseberries came through the severe ordeal better than was expected, and in some districts even full crops have been gathered. As the market prices have been exceptionally

high, growers have been partially recompensed for their loss upon other fruits.

Black Currants were a very short crop; Red Currants about half a crop, but they have been of good average quality and have made very high prices, doubtless owing to the fact that the jam maker's stocks were low in consequence of the failure of Plums for two successive years, making them anxious to secure a good stock of other fruits.

Raspberries have been a very partial crop, individual berries not having grown out to their usual size, but here very high prices have recompensed the growers for this deficiency.

Strawberries, excepting the earlier pickings, which were considerably damaged by the wet and cold weather, proved a very good crop, and have made remunerative prices, which would have been much higher had not the Kent, Hampshire, and Cornish fruit been practically ripe at the same time instead of



CYRTANTHUS ODORUS.

following each other as they do in a normal season:

With regard to wall fruit, Peaches, Nectarines, and Apricots have all been an indifferent crop, and, owing to the want of sun, the fruits are deficient in flavour, both under glass and outside.

It has been suggested that growers might protect considerable areas of land with a cheap covering of canvas, but, as these abnormal seasons come so seldom, this expense would not be warranted. The only thing I can suggest would be that growers should plant fruit on various aspects and give it the attention advised.

Naturally, the greatest amount of cold wind may be expected from the east in the spring; but the wet and cold of June was accompanied by strong winds from the west, so that no general rule can be given, and so remarkable has been the dividing line between a fair crop and none at all, that in one instance a half crop of Cherries were grown in an orchard on one side of a road, while on the opposite side there was scarcely a picking.

Therefore, neither in reference to position, soil, aspect, cultivation, or quality are we able

to predict with any certainty as to the probable crop's future.

It is, therefore, abundantly evident that a grower who pays attention to careful pruning, even when the trees are not bearing a crop, and liberal mulching when a crop is set, will come out best over a series of years. And even if a grower has lost his crop in a bad year, he must not be disheartened, but persevere in the best cultural methods, in which he will find his due reward.

GEORGE BUNYARD, V.M.H.
Royal Nurseries, Maidstone, Kent.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London.

CYRTANTHUS ODORUS.

This South African species was sent recently. We have made a little sketch to show the character of the flower. (See page 89.)

FLOWERS FROM DEVONSHIRE.

Mrs. Bayldon sends from Oaklands, Dawlish, Devon, many charming flowers, especially interesting being the

HYDRANGEAS,

with the following note: "I send a few Hydrangeas for your table. The little bit is *H. Hortensia Mariessii*, one-fourth of one head of bloom, but it was still in bud. It will be grand in about a week's time. The white is *H. H. Shirogati*, pinkish lavender, and the other is *H. H. lindleyana*. It is a sheet of bloom. Several other Hydrangeas are not yet out, such as *H. paniculata grandiflora*, *H. quercifolia*, and *Pride of Cornwall*, a Japanese Hydrangea. The *H. Hortensia* forms are interesting as showing the effect of our dry soil charged with iron. The flowers were taken from groups planted yearly for some years past. Last year's is the large head of deep pink, and the small heads of pale blue flowers are from plants put out five years ago. You will notice how the pink fades, then gets a lavender tint, through puce to blue. When fully open the flowers become a full blue."

OTHER INTERESTING FLOWERS.

Mrs. Bayldon also sends the beautiful *Tamarix hispida*, very fine clusters of *Olearia Hassii*, and several varieties of *Ceanothus*. "The young bushes are covered with bloom, and are wintered without protection. *Buddleia variabilis* is also out, and *Colutea melanocalyx*, a yellow-flowered shrub." Our correspondent writes: "By making a careful selection of shrubs and shrubby climbers we are practically never without some either in flower or in fruit, and certainly they are far more useful, and, indeed, beautiful (at any rate in large gardens) than so many beds of flowering plants. We have *Rhododendrons* for six months of the year." Mrs. Bayldon also sends the beautiful foliage of *Rosa rubrifolia*, with the following remark: "The Rose foliage is *R. rubrifolia*. The Rose is grown simply for its foliage, and the more it is cut from the stronger it grows. It is beautiful in a mass and for colour effect."

NEW PEACH PEREGRINE.

Messrs. Rivers of Sawbridgeworth send a new Poach, which is excellent in all ways. It was shown before the Royal Horticultural Society on Tuesday last, and received an award of merit. A group of this new Peach was staged last week at Bishop's Stortford show, and was greatly admired.

We have never seen pot trees fruit more freely. It forces well. Messrs. Rivers describe it as a midseason Peach, and a little earlier than the well-known Crimson Galande. Peregrine is not unlike Crimson Galande in colour; it is also a large fruit, and crops freely. The flavour is first-rate. This is an important point, as, though size and colour are the first market considerations, flavour is more so when a fruit is grown for the house. It is, we believe, a seedling from Spencer Nectarine, and this makes it more interesting, as showing how closely the Peach and Nectarine are allied. Some of the midseason Peaches do not force well, but this variety is an exception; 12-inch to 16-inch pots carry a remarkable crop. Messrs. Rivers have during the last quarter of a century given fruit growers so many valuable fruits that any new introduction from Sawbridgeworth is always looked forward to with interest by those who make fruit culture a special feature. It is always a pleasure to grow fruits raised in this country, as they are harder than others, and therefore better able to stand our variable climate.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

August 25.—Rothesay, Oxford, and Brighton Flower Shows (two days).

August 26.—Reading, Bath (two days), King's Lynn, and Harpenden Horticultural Shows.

August 27.—Sandy, Ellesmere, Stirling, and Dundee (three days) Horticultural Shows.

The Royal Horticultural Society's new garden.—In view of the large number of letters I am receiving asking if Wisley Garden can be visited by Fellows, will you be so kind as to permit me to say that at present the property has not yet been handed over to the society, and that none of our officers are there as yet. It is therefore impossible to open it to the Fellows at present. In fact, some few months will probably elapse before that can be done, but due notice will be given to all Fellows as soon as ever it is possible.

Sundries tent at Chiswick.—May I ask you to be so kind as to say that the council have consented to have a sundries tent at Chiswick on September 29, 30, and October 1 in precisely the same way as they did at the last Holland House show. Application for space should be made to Mr. Wright, Royal Horticultural Society Gardens, Chiswick, W.—W. WILKS, *Secretary*.

Lecture on the Hollyhock.—In the garden of the cottage and in many a wayside country garden the Hollyhock is pre-eminently the flower of the moment. On Tuesday last, at the instance of the Royal Horticultural Society, Mr. Webb of Saffron Walden treated the flower generally and its propagation. And what we gather from this lecture by a specialist of many years standing—and of which a brief summary is given in another column—is distinctly encouraging to the would-be grower, and to the amateur in particular. We are in absolute agreement with regard to the system of raising these plants in the most hardy way possible, so much urged by the lecturer, for it is a most vital point in connexion with their ultimate success. We may, perhaps, regret that the lecturer made no mention of the beautiful single Hollyhock. At the moment, we have in mind some really good effects from these single sorts, and though the spikes are not less than 8 feet high, and lined with flowers for some 3½ feet of their length, the plants have practically no cultivation whatever, and, growing in a rather poor and stony soil, have certainly no disease. For a couple of seasons have these plants flowered so, and their many beautiful shades of colour, and not less the great array of spikes, call forth much praise from the passer-by. What we admire, as we view these plants from time to time, comes in the knowledge at our disposal that they wintered with no protection, where they flowered a year ago, and now, with a complete exposure to all the vicissitudes of the year, are in greater bloom and finer array than ever. What greater substan-

tiation of Mr. Webb's treatment could there be? The general public will be well advised if they go and do likewise. In the remarks by Mr. George Gordon, who was in the chair upon the occasion, mention was made on behalf of these single-flowered sorts; and surely they merit all that was advanced in their behalf. We are pleased to note in many directions that this much-prized flower, which has been in a decline, so to speak, through many years, is likely to—in Nature's own way—regain the old-time prominence in our gardens. It is not only Nature's own way, this method of raising from seeds, it is also the most rational as well as natural way of restoring that great fund of vitality lost to these plants through many years of over, or perhaps of excessive cultivation by over ambitious florists and gardeners. But on the principle of "never too late to mend," and by the learning through much loss and sacrifice, a great fundamental truth, we now return to seed raising for this highly ornamental group. That its revival will be hailed with satisfaction in many directions we have but little doubt, for as a garden flower the Hollyhock is quite unique, and this from every standpoint.—E. H. JENKINS.

Warley Cottage Garden and Farm Produce Show.

—We are pleased to know that on September 3 next the fifth annual show for the parishes of Great and Little Warley will be held at Warley Place. The president is Miss Willmott, V.M.H.; the honorary secretary and treasurer Colonel Whittington, C.B., Codham Hall; and the assistant secretary Mr. Preece, Warley Place Gardens. There is a long list of most generous prizes for amateurs and cottagers, and the Royal Horticultural Society will give a medal to be awarded by the judges to the exhibitor who wins the greatest number of first prizes in the show. Several special prizes are given by Miss Willmott, who also gives to anyone living in Great or Little Warley plants, seeds, and bulbs for their gardens. It is most praiseworthy work to encourage the villagers to interest themselves in their gardens and in the land. We only hope that such an example will be followed in other districts.

Success with *Iris reticulata*.—In the autumn of 1898 I planted three bulbs. I divided my clump about the middle of the present month and found, of all sizes, 168, of which at least 100 are of flowering size. They were much crowded, and I look for a fine show next spring. In view of the difficulty sometimes experienced in growing this *Iris* I may mention that the soil in my bed is a very light one—a mixture of loam, leaf-mould, road sand, with plenty of old mortar rubbish—and the situation is sheltered and well drained.—CHARLES PRENTIS, *Bankside, Milton, Sittingbourne*.

Bamboos flowering.—So many instances have been mentioned lately in the pages of THE GARDEN of Bamboos flowering this summer that it may be worth recording that both *Phyllostachys Henonis* and *Arundinaria auricoma* are now in bloom in this garden; one specimen of *P. Henonis* is literally all flower.—LOUISA WAKEMAN NEWPORT (Mrs.), *Sandbourne, Bexley, Worcestershire*.

"The robin sings again."—I was greatly interested in reading "E. K. R.'s" notes of "The robin sings again" in last week's GARDEN. Your correspondent mentions that he knows of no sound more suggestive of winter than the trill of the robin. I quite agree with him. We have a very rare occurrence, I think, in the gardens here, and that is a nest of young flycatchers fully fledged and about to fly at the time of writing (August 17). I think it must be unusual to see such a late hatch in the North.—J. S. HIGGINS, *Rug Gardens, Corwen, North Wales*.

Irish Gardeners' Association.—The second excursion of the season, organised by this society, took place on Wednesday, the 12th inst., to Carton, the seat of the Duke of Leinster, at Maynooth. Leaving Dublin at noon, the members were met on arrival at Maynooth by Mr. Black, who conducted the party over the gardens, which extend to about a thousand acres. There is much to interest lovers of gardens at this historic seat. Many fine conifers are here, and open grassy woodland glades afford delightful prospects. Hardy

herbaceous plants are grown in enormous quantities, and the variety and extent of the collection was the subject of much interesting comment. Flowering shrubs, too, are a feature, and include many interesting and rare kinds. The ornamental waters, the pergola, and the contents of the various glass houses all contributed to the enjoyment and instruction of the visitors. Nor were the various objects of antiquarian interest, which the neighbourhood affords, neglected. Maynooth College was also visited. Tea had been provided by the organisers of the expedition. After a vote of thanks to Mr. Black, whose guidance had done so much to ensure the success of the outing, the party left for Dublin.

Hardiness of *Fraxinus Mariesii*.—I am anxious to find out whether this beautiful little tree is likely to prove really hardy in this part of the Midlands. At Bath Botanic Garden it forms a small tree, which at the end of June was covered with fine creamy white panicles of blossom, contrasting well with the smooth and shiny bronzed-tinted foliage. It appears to have been introduced to cultivation about the year 1880, and was figured in the *Botanical Magazine*, but has not become generally known. I fancy it is not often planted, as one seldom meets with it. It was described by Maries, who discovered it when collecting for Messrs. Veitch in China, as a small tree found in the province of Kin-Kiang. On the whole it should perhaps be regarded more as a shrub than a tree, and, though it is thriving well both at Coombe Wood and Bath, it is not by any means a quick grower. As to its hardiness, I am informed that 30° (Fahr.) of frost have done it no harm near London, but if any readers of THE GARDEN can tell me anything of its behaviour further north I shall be glad. The panicles of blossom are large and fine, and in colour much like the blossom of *Spiraea arifolia*.

***Thymus carnosus*.**—This Thyme is well adapted for rockwork on account of its neat growth. In spite of the fact that it is a native of sunny Spain, it manages to survive our winters, although it sometimes suffers from frost. My experience goes to prove that it should not be planted where the early morning sun reaches it, and it was not until I moved my plants from an open south position to one where they were shaded almost up to midday that I was able to keep them from being injured in severe weather. One would hardly recognise this plant as a Thyme, so very distinct is it from all the other members of the genus. My plants, which are about 9 inches to 12 inches in height, form erect little bushes, and emit a sweet fragrance when touched. The fleshy, dark green leaves are very distinct, as they terminate in a point, and instead of being flat they are rolled back until the edges almost meet. The stems are brownish and covered with a slight pubescence. I find it is quite easy to propagate, and small cuttings taken now and dibbled in moist, sandy loam will soon take root. As a flowering plant it is of little value, as its white blossoms, which are produced during late July and August, are rather inconspicuous. During the winter, however, a little group of plants looks most effective on rockwork, and only want to be seen to be appreciated. Plants a few years old rather resemble miniature conifers at a distance, and are very neat habited when well grown. *Thymus carnosus* was first discovered and described by Boissier, and must not be confused with *T. comosus* (Heuf.), which I see frequently mentioned in catalogues as a distinct species, but which is really a Transylvanian form of *T. Chamædryas*.—ARTHUR R. GOODWIN, *Worcestershire*.

Flowers at Far Forest.—Keen interest is taken in horticulture and agriculture by the Rev. G. F. Eyre, the vicar of Far Forest, and the second annual display was held recently in a field opposite the vicarage. It was a general show, as much of it was devoted to agriculture, and it is pleasant to see the clergy of a parish encouraging their parishioners in things that concern the garden and the land. It is a wholesome and praiseworthy work. The late President of the Board of Agriculture, Mr. Hanbury, had accepted the presidency of the show, and had promised a donation of £5, which has been kindly given by Mrs. Hanbury. The show has also

been fortunate in securing as patrons (who gave subscriptions of over £1) Lady Scourfield, Mrs. Betts, Mrs. F. J. Eyre, Mrs. G. F. Eyre, Mrs. Constantine, Rev. F. A. Reiss, Mr. A. Baldwin, M.P., Mr. J. S. Lea, Mr. E. Smith, Mr. A. K. Betts, and Messrs. Meredith Brothers. There is also a good list of vice-presidents and honorary members; while hard-working committees spared no efforts to ensure the success of the gathering. The committee consisted of the Rev. G. F. Eyre (chairman and treasurer), and Messrs. A. K. Betts, W. Jeans, D. Stokes, C. Green, J. Tarling, F. Bint, Walter Booton, and J. Bullock (hon. secretary). In the flower show the officers were assisted by a sub-committee, consisting of Messrs. W. Simmonds, E. G. Keeley, A. Meacham, R. Bellingham, and F. Baynham. The schedule was wide and comprehensive, and the classes, except those for fruit, were well filled. The season, as everyone knows, has been an exceedingly bad one for fruit throughout the country, and Far Forest district is no exception to the rule. The total number of entries was within one or two of 200.

Wallflower-leaved Stocks.—In the trial of various East Lothian and summer Stocks, now seen in the Royal Horticultural Gardens, Chiswick, are two white-flowered Wallflower or glossy-leaved Stocks that greatly resemble each other yet seem to be very different. Both are, however, remarkably good. White flowers on the green-leaved plants are much more effective than are white ones on the whitish or woolly-leaved plants. The earliest, and, so far, rather the most bushy, is East Lothian white Wallflowered. Some plants carry from nine to ten fine spikes of pure white, double flowers, and not above 9 inches in height. The other is All the Year Round, which is, so far, rather later, and, in that respect, seems to be distinct from the other. This variety gives 80 per cent. of doubles. Its merits as a winter bloomer in a greenhouse, grown in 5-inch or 6-inch pots, some four to five plants in each, are well known. For purity of colour and for sweetness of perfume All the Year Round cannot be excelled.—D.

Rosa rugosa Blanc double de Coubert.—All the Rugosas are valuable Roses, not so much for their flowers as for their handsome fruits. None is more beautiful or so sweet scented as Blanc double de Coubert. It is of the purest white, semi-double, and continues in flower the whole summer and autumn. It lasts in flower a little longer than the single varieties; each flower is quickly succeeded by another. I have never met with a Rose so sweet scented. A good group of it fills the air with its sweetness. It will succeed in any fairly good soil or situation. I saw a very large group of it growing in absolutely wet soil on the 1st inst.; in fact, it was called a bog garden, and certainly the water was within a few inches of the surface. It is also growing here under very different conditions, viz., dry light soil, but perfectly happy. It makes a delightful edge, or is splendid for planting on the tops of sunny banks, where it can have room to grow down the slopes. In this way it is seen at its best.—A., Cirencester.

Neglect of the Lantana.—This is another family which has been much neglected. It is very closely related to the Verbenas, and equally deserving of being again revived. Within the last few years, however, more attention has been given to them, and some improved and distinct varieties have been raised. It is to Continental raisers that we are most indebted for improved varieties. Drap d'Or, a beautiful golden yellow, which flowers freely when planted out, is one of the most desirable varieties; Chelsea Gem, a bronzy red, is also good, and there are some pure white and pink varieties. Like the Verbenas they may be readily raised from seed, and if from a good strain they will nearly all produce flowers equal to those of the named sorts, but of course the colours vary. It is, therefore, better to select the best from seedlings and propagate the following season from cuttings, which root freely under the same conditions as Fuchsias. The stock plants, too, may be treated in the same way. To secure good plants for bedding they should be propagated early in the season, and they require a rich compost and to be

grown on in warmth. If they receive a check, either for want of potting or from cold, it will be a long time before they start into free growth again, but give them a little care early in the season and they will continue to flower throughout the summer. There were few things which attracted more attention at the Holland House show than the four distinct varieties of Lantanas exhibited by Messrs. Cuthush and Sons, and the large group of seedlings exhibited by Messrs. Watkins and Simpson a year or two ago well illustrated what a variety of shades may be had from carefully selected seed.—A. HEMSLEY.

Clematis montana var. rubens.—Clematis montana is such a splendid garden plant that my interest was greatly aroused when hearing that Mr. Wilson had discovered a pink-flowered form in China. When at Coombe Wood early in the summer I was shown the original plant, and, though it had then long passed out of flower, I noticed immediately that it was quite distinct on account of the fact that both its stems and foliage were of a very pretty purplish shade. There certainly are some remarkable plants at Coombe Wood, and to mention only a few, I noticed Vitis armata, with fine bronze-tinted foliage and sharp thorns; Rubus Henryi, a lovely species, with beautiful shiny leaves; Rubus lasiostylis, with peculiar white stems 6 feet high, covered with short, cream-coloured thorns, and the underneath surface of the green leaves covered with white. There are also numbers of new Clematis species at Coombe Wood, and many of these will, no doubt, be of great service to the hybridist in the future.—ARTHUR R. GOODWIN.

Genista æthnensis.—In various parts of the gardens at Kew large bushes of this shrub have been flowering gloriously for several weeks past, and are still (August 1) in good condition. In addition to being a really good flowering shrub it is very graceful, and is of considerable merit when not in bloom. When a shrub combines these qualities we would expect to find it in evidence in most gardens, but this is not the case, for specimens, more especially good ones, are rarely met with. That its scarcity is not due to the plant being new can be readily seen, for it was described by Loudon, and he gives the date of its introduction as 1816. It is said to be found wild on Mount Etna at an elevation of 6,000 feet, in company with Acer monspessulanum, and from its habitat the common name of Mount Etna Genista is taken. Loudon, in his description, gives the height as from 2 feet to 4 feet, but this is incorrect, the specimens at Kew being in many cases 15 feet high. In habit it is extremely graceful, the branches being light, slender, and drooping, while the leaves are very small and few in number, so that there is nothing to give the branches any appearance of heaviness. The flowers are small and yellow, and borne singly from almost every node on the young wood. When in bloom the bright green branches, garlanded with bright yellow blossoms, make a charming picture. Some idea may be gathered of the eight a single specimen makes when it is stated that a plant 15 feet high and 10 feet through is simply a mass of gold, with the green of the branches peeping out here and there. No special cultivation is required for this shrub or small tree, as it will grow well in quite poor, sandy soil, and is easily increased by seeds or cuttings. When it is first planted out in permanent quarters every plan should be provided with a stake, as the roots are rarely in sufficient quantity to keep the plants secure until root action is renewed. G. æthnensis is an excellent subject for groups in the park, for isolated specimens, for beds in prominent places, or for the shrubbery, and in whichever place it is planted it will find admirers.—W. DALLIMORE.

Uncommon bedding Begonias.—Whether the few varieties of dwarf double bedding Begonias now flowering in beds at Chiswick do or do not show their true forms it seems evident that they represent a very dwarf, compact, free blooming strain, one that will doubtless in time be generally used to the displacement of the large-flowered and large-leaved varieties that are so gorgeous in pots but seem to be far from desirable bedding plants. Hitherto the rich crimson-scarlet double Lafayette,

one of the most brilliant of all bedding Begonias, has been most favoured. Of the Chiswick varieties there is one that bids fair to rival, if not to excel, that variety. It is named Argus; has bold, erect, double flowers of a beautiful orange scarlet, and these produced quite freely on plants but 6 inches in height. There is also Hollyhock, a charming soft rosy pink double, that is very dwarf and free blooming, and makes a capital companion plant. These seem to be the best at present of the varieties now flowering at Chiswick.—D.

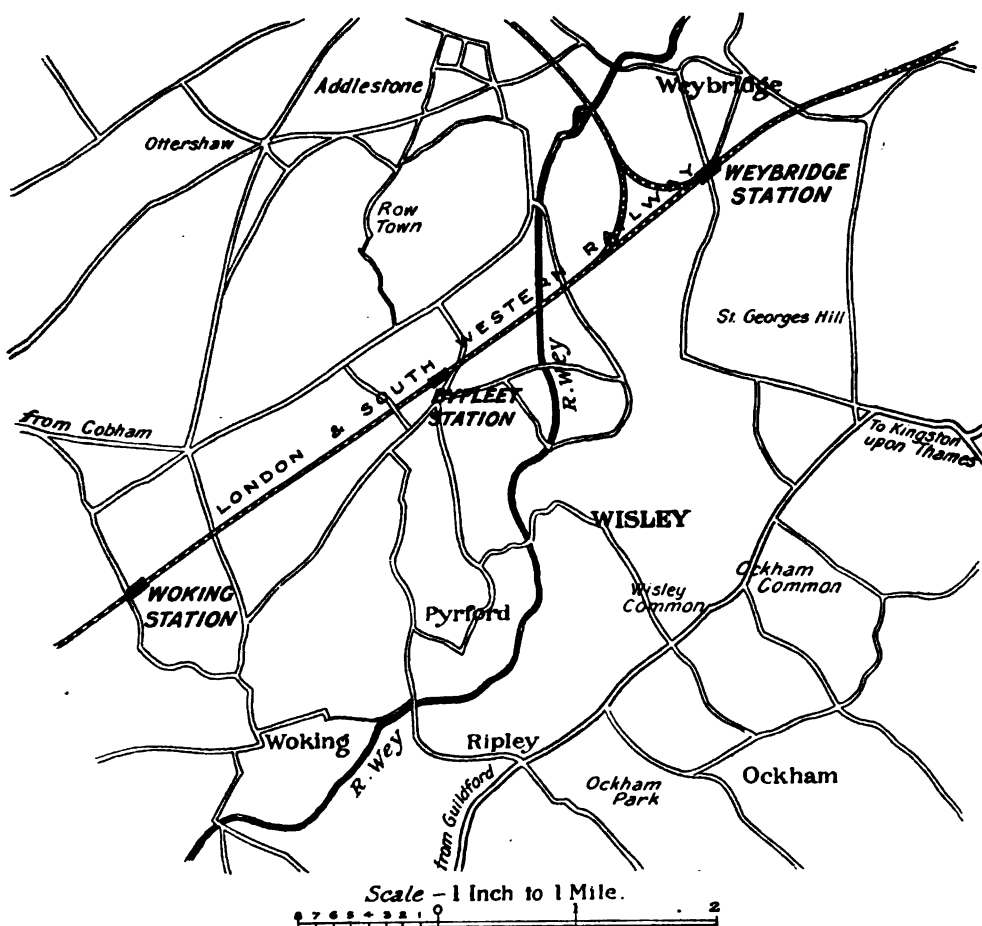
Begonia Lafayette.—The first time I saw this Begonia bedded out was in Miss Alice de Rothschild's beautiful garden of Eythrope. I have since seen it effectively used at Arundel Castle and Hampton Court. For brilliancy of colour, its crimson-scarlet flowers (a combination of the two) give the most dazzling and brilliant bit of colour of any plant I know. The plant is not a robust grower, therefore it requires planting rather thickly. For lines or bold masses of colour it is invaluable, as it also is grown as a pot plant for room or conservatory decoration.—T. E.

Lilium candidum.—The prettiest garden picture I have seen for a long time was in a garden at Ealing. Walking along the Gordon Road recently, and admiring the many well-kept and beautiful gardens for which this part is famous, I was particularly impressed by the beauty and interest of one place. As usual the garden was enclosed by a well-kept Privet hedge, the walls of the house, windows and doors wreathed with Roses, Honeysuckle, and Clematis, the narrow borders each side the path, leading to the door, loaded with Roses on standards in the richest luxuriance, and the base of the beds made bright with Begonias, Geraniums, and Calceolarias; but it was not these flowers—beautiful though they were—that so riveted my attention, it was a mass of this beautiful Lily planted on the square bit of turf facing the windows. They were between 4 feet and 5 feet high, and what gave further interest to the picture was the fact that a child stood behind the Lilies in the act of securing them to the stakes. There are few positions in the garden that this old Lily would not grace and beautify, but I never remember seeing it before with such pretty associations.—E.

THE NEW GARDEN OF THE ROYAL HORTICULTURAL SOCIETY.

SIR THOMAS HANBURY'S GIFT.

I WENT at the close of last week to Wisley, and found a somewhat narrow and by no means an attractive lane from Byfleet Station the shortest way; it was just about three miles distant. Somewhat in doubt as to the actual fitness of the gift for the purposes of the Royal Horticultural Society, and still feeling that the Limpsfield site was the best, yet I came away with the conviction that I had seen a wonderful and beautiful garden, one so utterly unlike the average garden, yet so overflowing with interest and with floral variety, that its value to the society can hardly be overestimated. It is a garden that no mere pen sketch can do justice to, and even the best of pictures will fail to depict what is there to be seen. Wisley Garden is the most perfect example of a wild garden I have seen. With plants of almost every description suited for cultivation there, not only are the things in it in a sense growing wild, but there has been no attempt to graft formality on Nature. One sees no formal paths, no ordinary beds or borders, and what of art has been utilised is of so simple and so unpretentious a character that it looks quite natural rather than structural. Modern rockwork, as so often seen, appears so artificial when compared with the simple formations seen at Wisley, that really the garden looks as if, from some central piece of planting, like a mossy Saxifrage, it had grown naturally. Certainly it developed bit by bit, and all on the same lines. There are no modern surprises, but there are many plants, shrubs, and trees in varying elevations; there a mass of waving Bamboos, a grand Gunnera manicata, and in another spot a floor of



PLAN OF THE NEW GARDEN OF THE ROYAL HORTICULTURAL SOCIETY.

(The quickest way, perhaps, to get there is to go to Weybridge. There are frequent fast trains from Waterloo, and cabs at station. The next best is Horsley, on the new Guildford line, but the service of trains is not quite so good. There is very little difference, however, between the two. Horsley is near Ripley. For full description of garden, see THE GARDEN of last week, page 105.)

Primulæ, a small ravine of Ferns, or myriads of other things. But all the same the garden is quite a natural one, and is for that reason all the more delightful. Although planted with things, so many of which are so rare and as little known, there are no labels. Mr. Wilson would not have them. He did not want them; he knew all the plants, as now the prime moulder of the garden, Mr. Tatnall, does. However, in other parts it may be needful in future to name products. At least, may this monument to the late Mr. Wilson—this beautiful wild garden—never be desecrated by labels or by any attempt at improvement. It should be carefully preserved. Those who have not seen it, as they now should, and all who have seen it, will surely join with me in demanding that no effort be made to alter, vary, or destroy one bit of what Mr. Wilson so lovingly accomplished.

Whenever the council of the Royal Horticultural Society shall take over the garden, though probably they will consult the Fellows' wishes first, they will find in the forty acres of comparatively open land that surrounds the garden ample room for the conducting of all descriptions of trials and experiments, practical and scientific. They will also find a capital soil, as all natural growth about there testifies that it is. There is not the least probability that thus remote from a railway, and with the huge area of Wisley Common adjoining it, that the vandal hand of the builder will ever encroach upon this beautiful locality. That a light railway will run through this beautiful district is little likely also, for residents in numbers there cannot be. The council will have to expend money liberally to provide glass houses, residences, stores, sheds, stabling, walls, fences, and many other things, without which a new Chiswick will be impossible. That

its remoteness from a railway station is an objection there can be no doubt, and forms a somewhat formidable obstacle to the garden's complete usefulness. The nearest and best station is Horsley, on the new Guildford line, twenty-two miles from Waterloo and three miles from the gardens, going through Ockham into the Ripley road. Vehicles can be got there, as also they can, of course, at Weybridge, which is nineteen miles from London, and between five and six miles from the garden. Woking is even rather further away. A. D.

THE FLOWER GARDEN. IMPROVEMENT OF THE HEUCHERAS.

THE Heucheras as wild plants are so weedy that it is doubtful if the genus would ever have received attention had not *H. sanguinea* been introduced; and the persistent failure of *H. sanguinea* to grow and flower well has promoted efforts to produce as beautiful a flower, or even more so, that will do well.

There are but four species that are of any real value, but the careful hybridisation of these has resulted in a dozen good plants of a type that could be recommended for the best garden use, and whose flowers are not only highly coloured, as Heucheras go, but graceful withal. It has been said that they, and more like them, are needed. Heucheras now hold a firm place in the affections of the hardy plant lover. They require a rich soil, a warm position, and cultivation does not cease with planting, for old tufts that have

grown freely and made considerable length of stem require to be split up and replanted in a rich soil once in every three years if their vigour is to be maintained. One of the things that has spoiled *H. sanguinea* as a thriving garden plant is neglect in cultivation, and this is shown by the vigorous growth of seedlings, which in their turn will dwindle if not well cultivated.

There is nothing so fatal to Heucheras as drought and an impoverished soil. The use of a good mulch of leaf-soil or similar material is to be recommended in hot dry seasons. The practice of associating these plants with alpine in rock gardens is in some measure responsible for the cultural neglect that has been their lot, and though some are well suited for this use their love for a rich soil and the need of ample space for development should not be overlooked. The colouring of Heucheras pertains mainly to the calyx, and its development is not maintained under glass or in shady places. Hybrid seedlings vary considerably, and the hybridist may expect to find 90 per cent. of bad colour forms amongst his seedlings, but if a good species is employed as the seed-bearing parent the percentage of good plants is reversed. Indeed, in carrying a hybrid race through the third and fourth generation for the development of a desirable feature, it appears necessary to use a species as seed parent every time. Seedlings of a reverse cross in which a hybrid bears the seeds all revert to an original type. Good Heucheras of easy growth are:—

H. brizoides (*hispida* × *sanguinea*).—A very strong plant, the leaves of which are bronzed-tinted, but not so fully coloured as in *hispida*. The stems are 3 feet high, and bear pink-tinted flowers that do not expand widely. The inflorescence is large, and it branches freely, but the flower colouring is somewhat dull, and this dullness is augmented by the presence of greyish down on the outer surfaces of the calyx. It is a splendid border plant, however, and it flowers twice each season, and the second display is brighter than the first.

Var. gracillima is a pretty hybrid between *miorantha* and *sanguinea*, with very small rich pink flowers, but freely borne on elegantly branched feathery stems 2½ feet high. The foliage resembles *H. miorantha*, and it is quite glabrous. One can recommend this neat little plant for the rock garden or border; the inflorescences look like a pink mist hovering over the plants when seen from a distance. The plant is misnamed, for there is no trace of *H. brizoides* in any of its characters, and its seedlings are pure *miorantha* and *sanguinea*.

H. Coralie is a hybrid seedling resulting from crossing both *brizoides* and *zabelana* with *sanguinea*. The habit is that of a vigorous *sanguinea*, with the coral tint seen in *brizoides* fully developed. The flowers are of large size and expand fully, and they look very dainty depending from the tall stems *Pentstemon* fashion. It is not yet available for general planting, but will be distributed in 1904.

H. Drummondii is a slender growing plant of *miorantha* type, with very small flowers of greyish pink colouring. It has a certain value in that its light habit is of use in hybridisation, but its garden value is limited.

H. Fantasia is a singular looking little plant, probably a hybrid between *Richardsoni* and *glabra*. The flowers are wholly green, but the charm is in the leafage, which is deeply lobed, ruddy bronze, and edged with pale green.

H. Flambeau is a brightly coloured Heuchera of hybrid origin, evidently resulting from a cross between *zabelana* and *sanguinea*. It is only fairly vigorous, growing 2 feet high as a maximum, but it flowers very freely. They open widely, are coloured a bright red, and they are closely massed on the spike as in *zabelana*. It is a pretty plant, and the nearest approach to a free-flowering Heuchera of *sanguinea* colouring so far obtained.

H. hispida (Pursh) = *H. Richardsoni* (Hort).—A North American species, but of no value as regards its flowers; the leaves form large tufts, and their reddish tints when young, and bronze tints when mature, are useful touches of colour associated with rockery plants, particularly as the

leaves are persistent, and remain in good character the whole year round.

H. Künfeldense is a white *Heuchera* found in quantity among hybrid seedlings, resulting from crossing *H. zabelana* with *H. brizoides*. It is a free and strong grower, with tall, pale green stems, very glossy leaves, widely expanding flowers of quite a pure white, and loosely arranged around the stem. The inflorescence is not so packed as in *zabelana*, but more nearly approaches *brizoides*. It is a much better plant than *Heuchera sanguinea alba*, a variety that has long been tolerated in gardens in the hope that it may prove of use as a parent.

H. Lucifer is a *brizoides* × *sanguinea* hybrid of exceptional vigour, growing 3 feet high. The leaves are exactly like those of *brizoides*, the flower-spikes are freely branched and produced, bearing coral-red flowers slightly smaller in size than *brizoides*. The growths are so numerous that the plants measure 4 feet through the inflorescence when two years old. As a border plant it is a great gain, and it flowers twice every season.

H. micrantha (widely known also as *H. erubescens*) is a free-growing plant with minute flowers; its leaves are slightly hairy but very strong, forming tufts above a foot through. The stems are 3 feet to 4 feet high, bearing thousands of greyish pink flowers, smaller than Wheat grains individually, but in the aggregate they form pretty pyramidal inflorescences of great use for cutting. They serve as material for lightening any arrangement of cut flowers. In the border it looks like a greyish mist of the *Gypsophila* type, and the flowers are not dissimilar.

Var. rosea is a selected seedling with ruddy purple leaves, coral-red stems, and flowers of similar size and shape to those of the type, but with a decided pale pink tint. A plant that is pretty in the mass and useful for associating with things of coarser growth.

H. Roseamunde is the hybrid recently figured in THE GARDEN, resulting from a cross between *H. micrantha rosea* and *H. sanguinea*, a similar cross to that yielding *H. gracillima*. This plant is very vigorous in growth, and bears many 4-foot stems branching to the base. The flowers are rose-pink, larger than in *gracillima*, but not so large as those of *sanguinea*. The inflorescences of one plant when fully developed are 4 feet through. It is doubtless the best hybrid *Heuchera* so far raised, the flowers being of appreciable size and the colouring of the best. Its greatest use is in border planting.

H. sanguinea.—An old garden favourite, but a puzzling plant to grow and flower well. According to trustworthy observers it grows 4 feet to 5 feet high in a wild state, covering large areas of ground with a thick mantle of its richly-coloured flowers, but it has steadily decreased in vigour year after year, and it is now but a ghost of the original. With careful cultivation it will still thrive, and where strong plants are grown or seedlings raised and selected it would hold its own with many border plants for brilliancy of colouring.

Var. alba has so-called white flowers on spikes 1 foot to 3 feet high, borne more freely than in *sanguinea*, but the external colouring is a greenish grey, a little pink developing with age.

Var. splendens is a greatly improved form with larger and darker coloured flowers, but it has quite as bad a constitution as that of the type.

Grandiflora robusta Edge variety and *Walker's variety* are all forms of unusual vigour, and well worth growing. Their colours are mainly of a paler shade, and their exceptional vigour is best maintained by good cultivation on the one hand and raising the plants from seeds at intervals of a few years on the other hand.

H. zabelana is one of the earlier hybrids, whose parentage appears to be *H. sanguinea* × *alba*, in that both plants occur freely among its seedlings. It makes a close tuft of medium-sized leaves, and produces many brown-tinted stems 2½ feet high, bearing compact spikes of pale rose-pink flowers as large as those of *sanguinea*. The colouring is soft and refined, and the flowers expand widely, but the plant lacks the grace of the *sanguinea-micrantha* hybrids. It is a valuable garden plant, however as it appears vigorous and easy to grow.

Other hybrids that I have tested are *Pluie de Fen*, *La Perle*, and *Grenade*, but they lack vigour and flower but sparsely, and are not likely to make such fine plants as the majority of those described.

GEO. B. MALLETT.

PROPAGATING TUFTED PANSIES FOR AUTUMN PLANTING.

No time should be lost in preparing stock for autumn planting, as much depends upon early work if good pieces are to be placed in their flowering quarters in early October next. From among the numerous plants in the beds and borders there are ideal tufts to be found for perpetuating the different sorts, and this is a good rule to observe if growers have not a quantity of stock plants in a spare corner of the garden. The old tufts should be cut back, at least coarse and elongated growths, as well as those which are more than a few inches in length. This cutting back of the plants promotes the growth of fresh shoots subsequently, and these latter are the best type of cutting that can be procured. If these old stock plants be mulched with some light and gritty soil at the time they are cut back, and the soil worked well into the crown of the tufts, the newer shoots will quickly form roots. The new shoots with their rootlets should be carefully broken out of the crown of the plants, and those that are too long for treatment of this kind should be removed with a sharp knife, taking care to see that the cuttings are detached of sufficient length for the purpose of propagation. A good length for a cutting is from 2½ inches to 3 inches, and all should be of somewhat recent development.

Stock prepared in the way just described is invariably healthy, and to begin with cuttings of this kind is a distinct gain. It is astonishing what a quantity of cuttings a few stock plants will produce in the course of a month or two. As soon as the first batch of stock has been removed, give the plants a thorough watering, following this a few hours later with liquid manure. The old tufts in a short time bristle with fresh and healthy growths. This is continued well into the late autumn or early winter, so that a large quantity of plants of any given sort may be raised within the space of a few months.

It may be more convenient in some instances, especially where only a limited quantity of each sort is required, to adopt the more simple way of dividing the old plants. To do this satisfactorily, however, the old tufts should be cut back as previously advised, and when the newer growths are a few inches in length lift the old tufts and divide them. Some varieties divide more easily than others, and if one type of the plant be preferred over another choose that of a creeping-like style of growth. Generally, when an old plant is lifted there is, in addition to the shoots above ground, a cluster of other younger growths, only partially developed, that quickly make tufts when divided up with the other fully developed shoots.

On the other hand, the older type of plant often has just one tap root, the plant forming a somewhat dense cluster of growths in its crown on the surface, and in consequence is quite unfit for division. Propagation by cuttings is the only method to follow with plants of this character, and unless the variety has some special interest it should be discarded in favour of those of a true tufted habit.

The old way of inserting the cuttings in frames is far less satisfactory than the more natural and hardy one here advocated. For this early propagation make up a cutting-bed of light and gritty soil, and bring this up a few inches above the ordinary garden level. Make the surface level and lightly firm with boards, and then thoroughly water it with clean water from a fine-rosed can. July and August are the months to select when planting out in October is expected. The shade from small shrubs or trees answers well for the position of a cutting-bed at this season.

Insert the cuttings about 2 inches apart in rows, which should be between 2 inches and 3 inches apart, according to the growth of the respective sorts. Plants from cuttings inserted in open beds

retain their vigour better than cuttings of the same sorts inserted in cold frames. The latter are often unsatisfactory and covered with red spider and other insect pests. On the other hand, the open air treatment produces plants of robust growth. Plants raised in cutting-beds in the open may be lifted with an excellent ball of roots and young growths when the planting out period comes round. For spring planting our cuttings are also inserted in the open and left without protection in winter. In this case, however, the cutting-bed is made up in the warmer corner of the garden, and it is astonishing what splendid plants are raised in this way.

Highgate, N.

D. B. CRANE.

THE HAMMOCK UNDER THE OAKS.

THE RAINY JUNE.

THIS month will always be known in the annals of Rose Brake as "The Rainy June." In twenty years no other June has given us such a superabundance of cold, wet weather. It has rained every day this month except two, and that is an unprecedented record. This is the last day of the month, and we hope that July will inaugurate a new régime.

It is disheartening to visit the bed of frail and fragile Shirley Poppies. They are quite prone. They all lie supine upon their sides, just as if they had been flattened by a gigantic smoothing-iron. The undermost are still bravely trying to flower their poor heads in the dirt. Until they were so beaten down we used to go out every morning after breakfast to enjoy the charming combination of light and delicate colouring that their blossoms presented. All shades and combinations of red, scarlet, maroon, crimson, rose, salmon, blush, flesh, and white are represented here, in exquisite contrasts, pencillings, and shadings; and, somehow, all contrive to present an harmonious whole. Some are large and some are tiny; some are single, others double and semi-double; all are beautiful. To say that they look as if they were cut out of tissue paper would be to compliment tissue paper too highly. No, they are the handicraft of fairy modistes, and are fashioned of fairy fabrics, satins, gauzes, and crêpes.

But just now we do not go to visit them with any pleasure, unless a feeling of admiration for their pluck in flowering at all under such adverse circumstances can be called a pleasure. We turn from them with a feeling of relief to the hundreds of stalks of tall Hollyhocks, which seem much better adapted to the endurance of hardness than the exquisite but delicate Shirley Poppies. The Hollyhocks still stand sturdily erect, their bloom little affected by the drenching rains. These are robust cottage maids, hardy and wholesome, and good to look upon.

Hollyhocks at Rose Brake have cross-fertilised themselves until their colourings are as bewildering as the combinations of a kaleidoscope. I know no other place where Hollyhocks live in such rampant, undisturbed freedom, nor where they seem more to enjoy themselves. All along the borders of the wild garden, and on the other side of the fence, which is the top of the orchard hill, they are undisputed queens of the land, increasing and multiplying at their pleasure. Originally there were planted here single, double, Alleghany hybrids, and the Fig-leaved Hollyhocks. Now, after several years of freedom, they have almost all reverted to one type, the single, but their colours partake of all the original kinds, and they have sought

out many new shades and variations. Some of the salmon-reds produced from the cross-fertilisation of the common red and the Fig-leaved species are very pretty. It has been reassuring to see them in the dripping rain, looking so cheerful and so hopeful of better things to come.

One of our nightly pleasures for some days has been to watch the great blossoms of the Evening Primrose expand to the silent summons of the night. The plant is over 5 feet in height, and has many branches. Sometimes fourteen blossoms open on the same evening, and there are many branches still to flower, so that from present appearances we can enjoy their opening for many nights to come. It is a novelty to us, for we have never before this summer had any plants of *Oenothera biennis* var. *lamarckiana* here, though we have tried various other kinds.

The little girl and I are usually at our post, sometimes under umbrellas, about half-past seven o'clock, to see the pretty flowers unroll.

bloomed for the first time here. This is a species that is indigenous to the States south of Virginia. It is a grand sight by moonlight, with its straight grey trunk, its long leaves that often measure 3 feet in length by 1 foot in breadth, and its marvellous flowers, whose diameter, when fully expanded, is often 1 foot across. The flower is at first vase-shaped, but gradually the petals fall apart. They exhale a rich perfume like that of some Orchids. The three outer petals are cream white, while each of the inner petals has a blotch of purple at the base that looks as if it were the impress of a large thumb that had been smeared with purple paint.

Many different varieties of the Marvel of Peru, which the cottagers call "Pretty-by-nights," are also planted along this path, with much Lavender, Lemon-balm, Thyme, and other aromatic herbs. A white Rose trained to a trellis here is just opening. It is the single-flowered *wichuraiana*, and is the last Rose to flower here, even later than *Rosa*

lower branches of our *Hydrangeas* rest upon the ground, and all the flower-heads turn towards the sun. They are planted in partial shade, close to the Oaks from which the hammock swings. Several kind of *Hypericums* are now in flower, and the *Catalpa* trees are just shedding their blossom. Many bush *Spiræas* complete the small list of shrubs in bloom at this time at Rose Brake.

It is worth while to make a new Rose garden if only for the pleasure of seeing one's new Roses flower for the first time. Such a garden was made here last fall, and almost every day now some new beauty greets us when we pay our morning call to the garden. It is a rather heterogeneous medley of Roses of many classes, all put to nurse in the new "Dutch Garden," as we call it, until they are large enough to be transferred to their permanent quarters. Many of them, though old enough, are new to us, and promise to endear themselves to us more and more on closer acquaintance. One little bed is given up to the

Polyantha hybrids, sometimes called Fairy Roses. Among the best of these that we have tried are *Etoile d'Or*, *Mlle. Cecile Brunner*, *Eliza Chatrand*, and *Little White Pet*. I do not know any other Roses that furnish such quantities of bloom the season through. They are true ever-bloomers. *Grüss an Teplitz* has given us a few pretty flowers of a distinct cherry red. Some catalogues describe this as a very fragrant Rose, but with us it has scarcely any fragrance at all, which is quite a disappointment. Fragrance is such a lovable quality in a Rose, or, indeed, in any flower, that it is like amiability in a friend.

This is the 1st of July, though this letter was begun yesterday, the last day of June. The change I hoped for has come. The sun is shining in an intensely blue sky, and, alas! it is very warm, and bids fair to be much warmer. All the birds are rejoicing over the cessation of the long rains. And what a variety of birds we have! Cat-birds are the most persistent singers to-day. I believe the cat-bird is a native American, and that England knows him not. Now I cannot imagine a garden without cat-birds, and I am led to wonder what English song-bird they most resemble. Or is there any bird in English gardens so impertinently and amusingly familiar; so

inquisitive; so at the same time shrewish and friendly as our cat-bird? No American song-bird, except the mocking-bird, has such a varied repertoire. Besides cat-birds there are many wrens, robins, red-birds, blue-birds, finches, warblers, thrushes, and orioles, all joining their voices in one full chorus to assert that life is good and worth the living.

DANSKE DANDRIDGE.

Rose Brake, West Virginia, U.S.A.

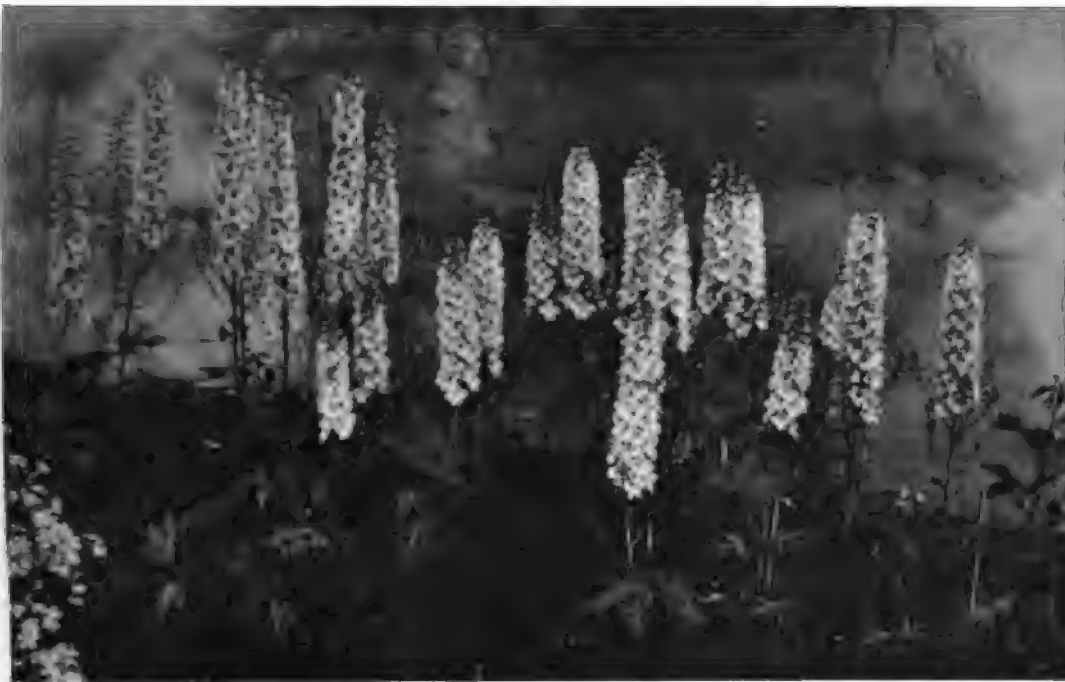
NOTES ON HARDY PLANTS

DELPHINIUMS AT MARGATE.

THE accompanying illustration represents two *Delphiniums* grown from seed in a small garden at Margate. They are both semi-double, the outer petals a brilliant azure blue, and the inner a rosy lilac, one having a dark and the other a bright centre. The plants are about 5 feet high.

Marlowes, Margate.

E. HOLT (Miss).



DELPHINIUMS IN A MARGATE GARDEN.

At first there is a slight relaxation of the folds of the petals, which are so neatly wrapped in the long green calyx; then a visible stir and swelling; the divisions of the calyx fall slowly back; the edges of the petals take the form of a St. Andrew's cross; an instant later they burst open, and the heart of the flower is revealed. Much slower is the process of unfolding in *Oenothera taraxacifolia*, which is of low trailing growth, with beautiful large white flowers, often tinged with pink. This species carpets the ground beneath the larger sort, and it takes close and somewhat tedious watching to see the blooms expand.

The winding path that leads to the Hammock under the Oaks, where we love to spend the evening hours, is bordered with these Evening Primroses, and with many other flowers that are at their best under the soft spell of moonlight. Here it runs beside the Yucca bank, where the great flower-stalks look like shrouded forms of mystery, fit guardians of the secrets of the night. A little further on the large-leaved *Magnolia*, *M. macrophylla*, has just

setigera, which is now at its best, sprawling over a small red Cedar, while *R. wichuraiana* is only beginning to bloom.

A rough bank of red clay along one of the drives through the Oak grove has always been an eyesore here, and we are now planting it with *wichuraiana* hybrids, such as *Evergreen Gem*, *Pink Roamer*, *Manda's Triumph*, *Gardenia*, and *Jersey Beauty*. All these are growing well, but will not bloom, I think, until next year. They were planted last fall. Another part of the same bank is planted with *Forsythia suspensa*, which makes a beautiful covering for banks.

Few shrubs bloom in July. Towards the end of the month many *Hibiscus syriacus* will take the place of the Hollyhocks, but these are not yet in flower. The handsome Oak-leaved *Hydrangeas* are very useful at this time, as they flower in June and continue long in bloom. The great, dark green, downy, five-lobed leaves, and large clusters of creamy flowers in an oblong panicle, make a clump of this *Hydrangea* a beautiful object throughout the summer. The



IN A GLOUCESTERSHIRE WILD GARDEN.

IN A GLOUCESTER WILD GARDEN.

THE illustration shows a peep in the garden of Mr. Hiatt Baker, Oaklands, Almondsbury, Gloucester. The flowers so charmingly placed are Irises, Moon Daisies, Shirley Poppies, and Valerian, but other things are grown too, though these are the chief features. The flowers are grouped or scattered here and there, and a few weeks ago when in full beauty made a picture of much interest. Mr. Baker kindly sent the photograph.

THE PACHISTIMAS.

ACCORDING to the "Index Kewensis" the genus *Pachistima*, belonging to the natural order *Celastrineae*, consists of only two species—*Canbyi* and *Myrsinites*. The latter of these was formerly called *Myginda myrtifolia*, but it is not so ornamental as *P. Canbyi*, and, moreover, is hardly procurable from ordinary sources, so that *P. Canbyi* is the only one of which much may be said at present. It may suffice, therefore, to say that *P. Myrsinites* is a small shrub of evergreen habit with greenish flowers, growing from 1 foot to 2 feet high, and succeeding in almost any soil where it is not too dry in summer. It comes from the North-West American Mountains, and is fairly common in some parts of the Rockies. As a garden plant it is quite surpassed by its congener *P. Canbyi*, whose popular name of Canby's Mountain Lover is, apart from the appropriative word of "Canby's," attractive enough. *P. Canbyi* is a very pleasing little shrub for the rock garden, where, if not showy, it is always attractive with its small evergreen shiny leaves on what an American writer describes as "corky" little branches. The flowers are exceedingly small and are reddish in colour, but are not so conspicuous as to be of much attraction in themselves. Combined, however, with the foliage and the general character of the plant they make a charming feature of the spot in the rock garden occupied by the *Pachistima*. The whole plant is more frequently 6 inches than 12 inches high. It is said to grow on dry exposed rocks in the mountains of Virginia and West Virginia, but from what I have seen of it here I am of opinion that it likes a fair amount of moisture at the root. Though it is not very fastidious in the matter of soil, a moist peat seems the best for its welfare. When in full bloom *P. Canbyi* is very pretty. I have here adopted the spelling of the name *Pachistima* as given in the "Index Kewensis," but

the plant is more commonly known as *Pachystima*, the spelling preferred by the authors of the "Illustrated Flora of the Northern United States and Canada."

Carselhorn, by Dumfries, N.B. S. ARNOTT.

ARCTOTIS GRANDIS.

THIS South African annual, which has only recently been introduced, is proving a great acquisition in a Sussex garden. In a fairly sheltered and sunny exposure single plants have become sturdy, many-branched bushes, 2 feet or more in height, each branchlet bearing many large flower-heads well supported on long stems. The ray florets with their yellow base, which are pure white on their inner surface, have a peculiar satiny sheen, and contrast admirably with the bright lavender-blue disc—a colour not frequent in the centres of composite flowers. The main stem requires to be firmly staked, but the ties, if well managed, are not noticeable. The copious rains which have fallen of late in the district have certainly done the plants no harm, so vigorous are they and full of bloom, with every appearance of going on steadily until frost cuts short their career. It is pleasant every morning to see the glistening flowers holding up their heads to greet the sunshine. They open best, it is true, in bright weather, but for some reason—possibly hygro-metric—do not always remain shut even on a grey cloudy day. The closed flowers, however, then show the pale blue outer side of the petals and are in themselves ornamental. The flowers are good for cutting as they grow singly on stalks 6 inches or 8 inches long, and remain open in water the greater part of the day, closing towards evening after the manner of the Daisy tribe and opening again with daylight. They should be cut on first expanding. A very pretty illustration of this fine plant appeared in THE GARDEN on September 21, 1901, but its decided merit has not yet been very generally recognised. It is easily raised from seed, requiring no heat whatever, but if sown early, which is desirable, the seedlings must be pricked off singly into small pots and kept under glass in a cold frame or greenhouse until they are strong enough to be transferred to the open border. Is it an established fact that *A. grandis* is only of annual duration? The character of the plant seems to suggest that it might be perennial under suitable conditions. In any case it fortunately lends itself

without any difficulty to the treatment of half-hardy annuals in general. K. L. D.

NEW DOUBLE DAFFODILS.

I AM rather at a loss to understand why these new double varieties raised by Mr. Engleheart have not found favour with the majority of the members of the Narcissus committee. Although they have been exhibited by the raiser on many occasions they have so far always been passed over, with the result that not half as much notice has been taken of them as their beauty really warrants. Of the three varieties, all of which were obtained from a cross between the old double yellow trumpet and poeticus ornatus, I much prefer Argent, the variety illustrated; and when I say that it has found considerable favour with such good judges as Miss Currey, the Rev. W. Wilks, and many others, and that good bulbs of it may now be purchased for a few shillings apiece, it will be rather surprising if it does not become a most popular flower in the near future. In reality Argent is a semi-double flower, with two or three sets of pure white pointed segments. The divisions of the cup are bright yellow; in most of the flowers the cup is double, in others (as can be seen in the top flower in the illustration) the cup is practically single.

Dubloon is quite distinct from the first-named, though of very much the same type. It is more double, and possesses four to five sets of rich yellow segments and an orange centre.

Plenipo, the third variety, is also perfectly distinct from either of the two preceding ones, and I consider it an acquisition. This also has four to five sets of creamy-yellow segments and an orange centre. But the most important point about these flowers is that they possess tall rigid stems and stand bolt upright. Alas! how many of us know to our cost what great havoc is wrought to our flowers by a gale. Always the first to go are those old favourites known as "Butter and Eggs," "Eggs and Bacon," and "Codlins and Cream." These new doubles, with their sturdy stems, stand being knocked about by those April squalls to which we Daffodil growers are well accustomed. The bunch of Argent, from which the illustration was prepared, was exhibited by Mr. Engleheart at Birmingham on April 16 last, and the best compliment that anyone can pay Mr. Engleheart is to grow his exquisite varieties as well as he himself grows them.

Worcestershire.

ARTHUR R. GOODWIN.

TREES & SHRUBS IN ALDENHAM HOUSE GARDENS.

SHOOTS of the following trees and shrubs were shown at the Holland House show on June 25. Owing to the large number of enquiries for a list of the specimens exhibited at the above show, I append a list of most of the noteworthy.

<i>Acer campestre pendulum</i>	<i>Acer Pseudo-platanus Worleyi</i>
<i>foliis maculatum</i>	<i>" Pseudo-platanus Simon Louis Freres</i>
<i>" carpinifolium</i>	<i>" colchicum rubrum</i>
<i>" diabolicum</i>	<i>Allanthus glandulosa</i>
<i>" japonicum filicifolium</i>	<i>" pendula</i>
<i>" aureum</i>	<i>" flavescens</i>
<i>" palmatum roseo marginatum</i>	<i>Æsculus Hippocastanum aureo-marginatum</i>
<i>" palmatum septemlobum</i>	<i>" Hippocastanum laciniatum</i>
<i>" elegans atropurpureum</i>	<i>" Hippocastanum aureum</i>
<i>" fraxinifolium albo variegatum</i>	<i>" flava</i>
<i>" fraxinifolium aureo-variegatum</i>	<i>Alnus glutinosa foliis aureis</i>
<i>" fraxinifolium crispum</i>	<i>" laciniata im-perialis</i>
<i>" californicum aureum</i>	<i>" rubrinervis</i>
<i>" saccharinum</i>	<i>" incana monstrosa</i>
<i>" Ginnala</i>	<i>" laciniata</i>
<i>" dasycarpum</i>	<i>Aristotelia Macqui</i>
<i>" pyramidale</i>	<i>Amorpha fruticosa</i>
<i>" platanoides albo-variegatum</i>	<i>Amygdalus dulcis purpurea</i>
<i>" platanoides globosum</i>	<i>" orientalis</i>
<i>" laciniatum</i>	<i>Aralia Maximowiczii</i>
<i>" " Schwedleri</i>	<i>" pentaphylla</i>
<i>" " Reitenbachii</i>	<i>Amphiraphis albescent</i>
<i>" Pseudo-platanus Leopoldi</i>	<i>Acanthopanax aculeatum</i>
<i>" Pseudo-platanus purpurea Nisetti</i>	<i>" spinosa foliis-albo-marginatis</i>
<i>" Pseudo-platanus Prince Handjeij</i>	<i>Betula alba purpurea</i>
	<i>" laciniata pendula</i>

Baccharis patagonica
Bromoselia papyrifera
Eupatorium fruticosum
Berberis vulgaris purpurea
 " " *variegata*
 " " *elegans*
 " *Thunbergii*
Carya alba
 " *microcarpa*
Calophaca wolgatica
Calycanthus floridus
Caragana arboreocens
 " *pygmaea arenaria*
Carpinus cordata
 " *Betulus folis mar-*
 " *morata*
 " *Betulus aereo-*
 " *variegata*
 " *Betulus folis-*
 " *variegata*
Chotaya tornata
Castanea sativa argenteo-
 " *variegata*
 " *sativa aureo-*
 " *variegata*
 " *americana rubra*
Catalpa bignonioides aurea
Cerasus Mahaleb argenteo-
 " *variegata*
Celtis occidentalis
 " *reticulata*
 " *Australis*
Ceanothus dentatus
Cercidiphyllum japonicum
Cercis Siliquastrum
Chionanthus virginicus
Cladrastis amurensis
Clerodendron trichotomum
Comptonia asplenifolia
Coriaria myrtifolia
Cornellia Emerus
Cotoneaster affinis
Crataegus Oxycantha folis
 " *argentea*
 " *orientalis*
Corylus Avellana aurea
 " " *purpurea*
 " " *lacinata*
 " " *quercifolia*
 " *Colurna*
Cornus alba Spathulifolia
 " *alternifolia*
 " *brachypoda*
 " *florida rubra*
 " *mas. aurea elegantis-*
 " *alma*
 " " *variegata*
 " " *folis aurea*
 " *sanguinea variegata*
 " *siberica elegantissima*
Deutzia gracilis variegata
Dimorphanthus mandeschur-
 " *cus pyramidalis*
Elaeagnus argentea
 " *macrophylla*
 " *glabra aureo-varie-*
 " *gata*
Euconymus alatus americanus
 " *atropurpureus*
 " *verrucosus*
Fagus sylvatica folis argenteis
 " " *f. aureis-varie-*
 " " *gatis*
 " " *cristata*
 " *s. purpurea pendula*
 " *a. tricolor*
Fraxinus americana argentea
 " *variegata*
 " *juglandifolia sub-*
 " *integerrima*
 " *excelsior aucubefolia*
 " *e. aurea*
 " *e. argentea - vario-*
 " *gata*
 " *Mariesii*
 " *Ornus*
Gymnocladus canadensis
Gleditsia triacanthos
 " *t. excelsa*
Haleia tetraptera
Hippophae rhamnoides
Himodendron argenteum
Juglans nigra
 " *regia lacinata*
Koeleria paniculata
Kerria japonica variegata
 " " *grandiflora*
 " " *plena*
Laburnum Alchingeri
 " *alpinum*
 " *vulgare anreum*
 " *v. monstrosum*
 " *cristatum*
 " *v. quercifolium*
Lagerstromia indica
Ligustrum vulgare elegantis-
 " *simum*
 " *ovalifolium aureo-*
 " *variegatum*
Lycosteria formosa
Liquidambar styraciflua
Liriodendron tulipifera aurea
Lonicera Alpigena

Lonicera orientalis
 " *Schmittiana*
Lindera procax
Myrica gale
Maclura aurantiaca
Neillia opulifolia aurea
Nandina domestica
Neviusia alabamensis
Nuttallia cerasiformis
Ononis rotundifolia
Oriza japonica
Ostrya virginica
 " *quercifolia*
Potentilla fruticosa
Panax quinquefolia
 " *sessilifolium*
Parrotia persica
Photinia villosa
 " *serrulata*
Planera crenata
Pavia macrostachya
Parahia tridentata
Phellodendron amurense
Philadelphus coronarius
 " *argenteo variegatus*
 " *coronarius aureis*
 " *Lemoinei Boule*
 " *d'Argent*
 " *myrtifolius*
Populus canadensis aurea
 " *certinensis*
Prunus domestica folis
 " *variegata*
 " *Pissardi*
Pittosporum eugenoides
Ptelea trifoliata
 " *fastigiata*
Pterocarya caucasica
Pyrus Aria
 " *aurea*
 " *Acucuparia pendula*
 " *variegata*
 " *Fifiana*
 " *salicifolia pendula*
 " *pinnatifida*
 " *Norbus*
 " *majestica*
 " *vestita*
Quercus mongolica
 " *pedunculata Con-*
 " *cordia*
 " *filifera*
 " *folis*
 " *variegata*
 " *folis*
 " *maculatis*
 " *Cerris variegata*
 " *palustris*
 " *leucocarpa*
 " *serrata*
 " *americana*
 " *Phellos*
Robinia monophylla
 " *aurea pendula*
 " *Roxynskiana*
 " *tortuosa*
Ribes nigrum folis aureis
 " *variegatis*
Rhamnus alpinus latifolius
 " *Frangula asplenifolia*
Rhus glabra lacinata
 " *typhina*
Rosa rubrifolia
Rubus canadensis rosea
Salix incana
Sambucus nigra argenteo-
 " *variegata*
Sambucus nigra pyramidalis
 " *aurea*
 " *tenuifolia*
 " *racemosa serratifolia*
 " *r. s. folis aureis*
Shepherdia canadensis
 " *argentea*
Spiraea Anthony Waterer
 " *Menziesii*
 " *aristifolia*
 " *confusa*
 " *Indleyana*
 " *Frœbell folis varie-*
 " *gatis*
Stephanandra Tanakae
Symphoricarpos vulgaris
 " *variegatus*
S. racemosus purpureus
Syringa japonica
 " *aurea elegantissima*
 " *persica lacinata*
 " *Josikea*
Tamarix japonica
Tilia europea aurea
 " *americana gigantea*
 " *platyphyllis asplenifolia*
Ulmus Berardi
U. betulifolia
 " *campestris folis variegatis*
 " *c. Louis Van Houtte*
 " *modiolina*
 " *minor folis argenteis*
 " *Weedi aurea*
 " *glabra variegata*
Vitis vinifera purpurea
Viburnum Lantana
 " *pilcatum*
Virgilia lutea

Weigela rosea
W. r. Eva Rathke
 " *Looymanii aurea*
 " *variegata*
Aldenhams House Gardens.
 W. r. Dr. Baillon
 " *amabilis versicolor*
 " *Xanthooceras scorbifolia*
 " *Xanthoxylum fraxinifolium*
 E. BECKETT.

HAMPTON COURT PALACE GARDENS.

VISITING the above gardens a few days ago I was pleased to notice the introduction of the new hybrid Water Lilies. They are planted in the basins of the ornamental fountains in the east and south gardens. Those in the east gardens were looking very beautiful on the morning of my visit, most of the best varieties being represented, and to me they appeared one of the most interesting features of the garden on that day.

I have not visited the old-fashioned and delightful south garden of the palace for some years, and was delighted to find a great improvement in its planting and up-keep, and this brought about without disturbing its old-world character and associations. This garden is full of interest at all seasons with its wonderful old Yews and its ancient royal bower, but most of all late in spring or early summer, when the rich collection of hardy flowering trees and shrubs are in bloom. Standing on the extreme end of the terrace near the lawn tennis ground and looking towards the palace, I do not know of a garden scene invested with a richer, more varied, or a more pleasing and restful aspect than this. On the left is the River Thames, on the right the east garden, with its immense expanse of lawn, its interesting avenues of old Yews, its beds and borders of bright flowers, and its boundary of giant Elms, keeping watch as it were over the whole. But the south garden at the season mentioned to my mind is the gem of the whole garden, with the splendid south façade of the palace as a background, the immense mounds of Lilac, Weigelas, Thorns, Laburnums, and other hardy trees in flower at this season (late spring), with the endless variety of spring flowers margining the whole groups, compose, as I said before, a garden scene of rare interest and beauty.

There is one innovation in this garden which I regret to see, namely, a portion of one of the quarters devoted to what appears to be an attempt at forming a wild garden. A wild garden is all very well in its place, but to be consistent it should be placed in such a position as is naturally more or less wild like itself. In that part of the garden called the wilderness, for instance, it would have been quite appropriate. I respectfully submit it is out of place in this delightful old-world garden.

CHRYSANTHEMUMS.

EARLY-FLOWERING CHRYSAN- THEMUMS.

SEASONABLE WORK.

IN the plants in the open border the past month has wrought a great change, and there is now the promise of an unusually brilliant display in the near future. The early-flowering Chrysanthemum quickly responds to kindly treatment, and soon gets established. For some time past our plants have had the support of stout stakes, and it is just as well that this was done rather earlier than usual this season. They have for rather more than a week needed a second tying, and where this has been neglected many useful lateral shoots have, by their own weight, broken out from the main stem, and the symmetry of the plant in a degree destroyed.

Curiously, this breaking out of the shoots is chiefly met with in plants of *Mme. Marie Masse* and its sports, a type of the early-flowering Chrysanthemum that is generally considered as ideal. This is a common failing with Chrysanthemums which are given a pinching or stopping of the main growths earlier in the season. Interference with natural development by pinching or stopping has the effect of producing shoots less tenacious in their hold on the main stem, and these in boisterous weather not infrequently break out most inconveniently. For this reason I have



THE NEW NARCISQUS INCOMPARABILIS ARGENT. (Much reduced.)

always deprecated the pinching or stopping of the early-flowering Chrysanthemums. The only reason that one can suggest for this slight failing with some of the early sorts is the quick growth which these plants invariably make. The wood cannot mature or ripen sufficiently quick to strengthen and support their own weight, and the branching lateral shoots get broken off at their union with the main stem. This work should begin immediately the lateral growths are a few inches long, and if the plants be in rows, as ours are, protection may be easily provided. Insert other stakes alternately between those already supporting the plants, and midway between one plant and another. Begin at one end of the row with

a good stout stake, as the strain will be greater there than at any other point. Either raffia or tarred twine may be used, and this should be looped from one stake to another, so as to embrace the numerous lateral shoots of the respective plants, thus maintaining them in an upright position. It is better at this season to make one tie rather low down, so as to embrace the lower growths, and then at a later period—say two or three weeks hence—give another similar tie, but in this instance bringing the loop just below the last break. The tarred twine or raffia, of course, is carried down on both sides of the rows of plants, and when this is properly done the strong winds of autumn seldom give one much cause for anxiety.

In the case of large individual plants in the borders and elsewhere it is better to first tie the main stem two or three times to reliable stakes, and when the lateral growths attain respectable dimensions to insert two or three smaller Hazel stakes or Bamboo canes about 1 foot or rather more from the one in the centre. Then run the tying material round this twice, once at the present time, and again a few weeks later. Now that buds are developing at the apex of many of the shoots the surface soil should be dressed with a good concentrated manure. Ichthemio Guano has never failed in our case, providing as it does just the plant food that these autumn flowers appreciate. A liberal dusting of this guano round about the plants on the surface soil should be applied and subsequently hoed in. As a result of this generous treatment an impetus is given to the growth of the plants, and the satisfactory development of the buds is thereby ensured. There is a tendency with some growers, more especially in the case of those who have grown the November sorts for exhibition, to disbud their plants rather severely. No greater mistake could be made. The early-flowering Chrysanthemums do not take kindly to this treatment. As a matter of fact, they are never seen to greater advantage than when grown quite naturally. Disbudded blooms seem to lose the beauty and charm that those produced on freely-flowered sprays possess, and it is only necessary to compare the two varieties to be convinced of this. The late Mr. W. Piercy, one of the pioneers of these flowers, was always very strong on this point, and the wisdom of his methods cannot be gainsaid.

Highgate, N.

D. B. CRANE.

AN ARTIST'S NOTE-BOOK.

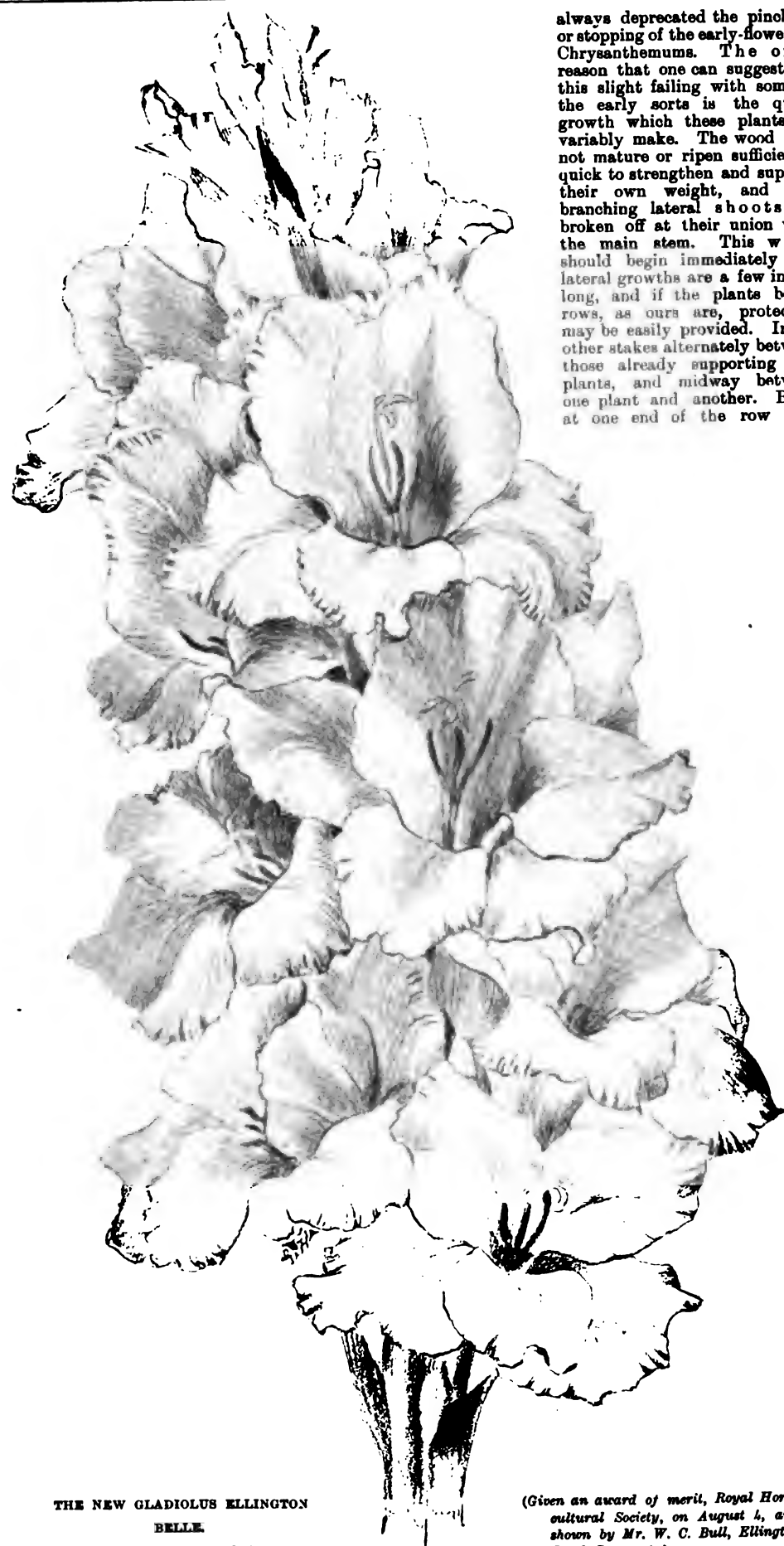
GLADIOLUS ELLINGTON BELLE.

THE Gladiolus season was ushered in recently by a new variety of much beauty, which gained an award of merit from the Royal Horticultural Society; it is called Ellington Belle. The large shapely flowers are cream colour, with a trace of scarlet at the tips of the segments, and produced thickly on a strong spike. One of its chief charms is its delicacy of colouring.

SOME NEW ROSES AT THE ABBEY PARK SHOW, LEICESTER.

MESSRS. A. DICKSON AND SONS, Newtownards, Belfast, were very successful exhibitors of Roses at the above exhibition on the 4th inst., not only taking the first prize in every class in which they competed, but also exhibiting several new Roses of great interest; among them

George Dickson (H.T.), which might be popularly described as a glorified Liberty, in colour bright glowing crimson, overlaid with a slight dark shading, of the largest size, full, and with large, stout, finely-formed shell petals; it was said to be the second bloom cut from the seedling, and should it maintain the fine character seen at Leicester it



THE NEW GLADIOLUS ELLINGTON
BELLE.

Three-fourths natural size.)

(Given an award of merit, Royal Horticultural Society, on August 4, and shown by Mr. W. C. Bull, Ellington Road, Ramsgate.)

cannot fail to be regarded as a great acquisition. It was selected as the best bloom in the show.

Countess of Derby (Tea).—Creamy white, with a delicate pinkish salmon centre. Very pleasing.

George Prince (H.T.).—A flower of the build of Mrs. E. Mawley, but with more primrose in the ground colour, and with a deeper tint on the petal edges; of full substance.

Mrs. Pierpont Morgan (Tea).—Deep rose with a flush of violet, a flower of the build of Mme. Cusin, but deeper in colour.

Charles Grahame (H.P.).—A brilliant deep scarlet Rose of excellent build, and quite glowing in colour.

Duchess of Westminster (H.T.).—A variety with something of the character of *La France*, and recurving as that Rose does on the centre petals; the surface cream, the reverse delicate pink. A very promising Rose.

H. V. Machin (H.P.).—Bright crimson, flushed with purple and maroon; a fine full flower.

Mention may be made of *Florence Pemberton* (H.T.) as being in very fine character; and *Oskar Cordel* (H.P.) was very fine, bright rose in colour, with large, finely formed petals; bold and striking. R. D.

TREES AND SHRUBS

CORNUS CAPITATA.

(*BENTHAMIA FRAGIFERA*.)

FROM Nepal in 1825 this handsome flowering tree was introduced, when seeds were sent to Mr. John Tremayne of Heligan, Cornwall. The plants raised were at first placed in the greenhouse, but, becoming too large for their quarters, were planted in the open. After about twelve years' growth they commenced to flower and fruit, and since that time numberless seedlings have been raised in Cornwall and elsewhere. In 1838 the plant was awarded a silver medal by the Royal Horticultural Society, and was named *Benthamia*, after the secretary to the society at that time. Of late years the title has, however, been changed, and the appellation of *Cornus capitata* substituted, but the tree is still invariably known to those who grow it by its earlier name. In Cornwall it is largely found in shrubberies and woods, and presents a lovely sight in July when covered with its large, pale sulphur flowers, which are about 3 inches in diameter, and give the trees the appearance of clouds of faint yellow, while the effect by moonlight is particularly charming. The true flowers of the *Benthamia* are inconspicuous, the large, yellow, petal-like segments that appear to form the flower being really bracts.

The tree is usually considered tender, but at Fota in County Cork it has withstood 25° of frost with but little injury, while another correspondent has recorded it as enduring 26° with no further damage than the browning of the tips of the leaves. On page 26, volume lxii., of *THE GARDEN*, "R. P. B.," in an article whose value is almost entirely nullified by the neglect to specify locality, records *Benthamia* thirty years of age in Scotland, but presumably this refers to an exceptionally mild spot.

The subject of this note is seen at its best when grown in a sheltered but fairly open position, backed by deciduous trees, whose fresh green constitutes an admirable background for the masses of creamy yellow blossoms. When afforded ample space the *Benthamia* forms a spreading tree with branches sweeping the ground, one at Fota measuring 27 feet in height in 1884 and having a branch circumference of 120 feet. There is a fine specimen on the lawn at Enys, and in Mr. Jonathan Rashleigh's lovely garden at Menabilly, Cornwall,

where the photograph here reproduced was taken, there are a number of large examples. I understand that the tallest specimens are at Heligan, where the tree was first introduced, and that these exceed 50 feet in height and have a trunk diameter of 5 feet. I have seen many good trees of this species in Devonshire gardens, and have also met with it in the South of Ireland, the Channel Islands, Dorsetshire, and Hampshire. It seems indifferent to soil, and I have found it doing well in shallow clay. It sheds its leaves in January and February, but is never completely bare. In the autumn it enters upon a second season of beauty and justifies the name of Strawberry Tree, which it shares with *Arbutus Unedo*, for towards the end of October the fruits begin to ripen, becoming a deep crimson in colour and often being borne in such quantity as to bend the branches downwards with their weight. Large fruits measure 4 inches to 5 inches in circumference. While the berries are on the tree the future flowers may be seen, the size of Peas, studding the new shoots. The fruit often hangs till after

ripe. The pod is very small and round, and is best sown with the seed, which readily germinates.

Bagshot, Surrey.

J. CLARK.

USES OF BRITISH PLANTS

(Continued from page 98.)

IX.—UMBELLIFERÆ.

CELERY (*Apium graveolens*).—This is a common ditch plant near the sea, but not infrequently inland as well. It is unwholesome when green, if not really poisonous. By earthing up the deleterious property is not developed. In Malta it is never blanched, but used for flavouring only. The Turnip-rooted variety, known as "*Celeriac*," is much used on the Continent. It is an Italian name; the old English terms were "*ache*" and "*Smallage*." It was much used in drugs in the Middle Ages for gout, fevers, &c.

Caraway (*Carum Carui*).—A naturalised plant, having escaped from cultivation. It is one of the group of umbellifers characterised by having car-



CORNUS CAPITATA (*BENTHAMIA FRAGIFERA*) IN FLOWER IN MR. JONATHAN RASHLEIGH'S GARDEN AT MENABILLY, CORNWALL.

Christmas, but in some places and seasons the birds devour it eagerly, and thereby spoil the pretty effect of the trees with branches drooping beneath the weight of their glowing load of berries.

S. W. FITZHERBERT.

HEDYSARUM MULTIJUGUM.

THIS is a native of the southern parts of Mongolia, and is a distinct and very pretty member of the hardy Leguminosæ. It makes a small shrub 3 feet to 4 feet in height, with slender much-divided branches of a greenish white hue, as also is the whole plant. The leaves are 3 inches or so long, pinnate, with small, entire, oval leaflets, the whole having a tender, Fern-like appearance. The Pea-shaped flowers appear in short, upright racemes, are bright purple, and very freely produced all over the plant. With age it tends to get loose and leggy, but can be remedied by pegging the longer branches down round the plant, when they will grow and flower as before. It seems practically indifferent as to soil, but a light sandy one is best for flowering. The seed is found singly or in pairs in the dead flowers, which hang on the plant until

minative properties, like Cumin, Dill, and Anise, but is grown for flavouring purposes. The scattering seeds over cakes has long been practised. Cumin is now used for so doing in Southern Europe, and the black seeds of "*Fitches*" (*Nigella*) were so employed by the ancients. The name was derived from Caria, whence, Pliny says, the plant was received. The roots are also edible, like Parsnips, while the foliage might be used as salad, or instead of Spinach.

Parsley (*Carum Petroselinum*).—This is regarded by Hooker as an escape, as it is not found wild. It was known to the ancients, and was certainly cultivated here in the fifteenth century, and probably before. Gerard calls it "*Parsee*," describing it as "delightfull to the taste and agreeable to the stomache; while the roots or seeds boiled in ale cast forth strong venome or poyson." Chaucer calls it "*Persly*." It was much used for medicine in the sixteenth century.

Gout-weed (*Egopodium Podagraria*) is a much-creeping herb found near buildings, and supposed to have been introduced and cultivated in the Middle Ages. It was also called Herb Gerard and Bishop's-weed in the sixteenth century. Though

many remedies are given for gout in the fourteenth this plant is not mentioned. The name *Podagraria*, Gerard says, was given by Germans. The young leaves are said to be eaten as a green vegetable in Sweden and Switzerland.

Cicely (*Myrrhis odorata*).—This occurs in pastures, &c., usually near houses, as it was formerly much cultivated as a pot herb, eaten either as a salad or boiled, and is still so used in Germany. It is very aromatic and carminative and stimulant. It was called Great Chervill or Myrrhe in Gerard's time.

Chervil (*Anthriscus Cerefolium*).—This is a rare plant and only occurs as an escape from cultivation or introduced with other seed. It was formerly grown as a pot-herb and for salads. Turner, writing in the sixteenth century, says: "If it be eaten in a sallat, it is good for the stomache and the head, by reason of the pleasant smell that it hath." It was called *Cerfoile*, *Sistrum*, and *Sisaron* in the fourteenth century.

Fennel (*Foeniculum officinale*).—This is probably native as a maritime plant, as at Barmouth and the Channel Isles. It was used in former days with St. John's-wort to be suspended over doors at midsummer against evil spirits, &c. It is carminative and aromatic, like many other umbellifers, the oil of fennel distilled from it being chiefly employed. It was used in a variety of ways as a drug in the fourteenth century.

Coriander (*Coriandrum sativum*), only found in waste places, as an escape from cultivation, as it has long been cultivated in South Europe, and introduced into England. It will be remembered that Manna was described as being round like Coriander seed, the fruits of this plant being exceptional in that respect. The name is from the old Greek term, *korrin*, a bug, from its peculiar odour, which disappears when the fruit is dried. Like Caraway, the fruits (miscalled seeds) are used for flavouring bread and confectionery, and for curry powder. It is recommended in a receipt of the fourteenth century for "reed pynpyl that warit on the face," i.e., a red pimple that annoys.

Samphire (*Crithmum maritimum*).—This has fleshy succulent leaves, due to the presence of salt, as it grows on maritime rocks. The name is a corruption of *San Pietro*, as it is called in Italy, the Herb of St. Peter. Gerard described it as furnishing "the pleasantest sauce, and best agreeing with man's body, for the digestion of meats, &c." Cattle are fond of the foliage.

Lovage (*Ligusticum scoticum*).—This is found on rocky coasts of Scotland. The foliage is used as a green vegetable, raw or cooked. An infusion is used as a remedy for cattle, being aromatic and carminative. Another, a European species (*L. officinale*) is the Lovage of the garden, and much used as a drug plant in the fourteenth century.

Angelica (*A. Archangelica*) is a garden relic. It has a very large and fleshy root, both pungent and aromatic. It is the leaf and stalks that are eaten when candied with sugar by the confectioner. The name was apparently given to the plant from its supposed virtues in expelling the plague. The true British species, *A. sylvestris*, is inferior to it.

Master-wort (*Peucedanum Ostruthium*).—This is a rare plant and naturalised, having been formerly cultivated as a pot herb and used in medicine in the Middle Ages. The name is due to its supposed "commanding" virtues over the ills that man is subject to. It is called "Masterwort or False Pellitory of Spain" by Gerard, who thus described its virtue: "It is not only good against all poison, but also singular against all corrupt and naughty aire and infection of the pestilence, if it be drunken with wine." He also adds a number of other uses.

Wild Parsnip (*Peucedanum (Pastinaca) sativum*).—This is the origin of the garden Parsnip. The Student, "the best in the trade," was raised from it by Professor James Buckman at the botanic gardens of the Royal Agricultural College, Cirencester, from 1847—1851, when Messrs. Sutton and Sons issued it. The Parsnip was known to the Romans, who collected the wild plants and improved the roots by growing them in a rich soil. In the Channel Islands a large variety is grown for cattle. It is said that in Ireland Parsnips were

mashed up and fermented for a kind of beer. It has also been used as a drink instead of coffee. The seeds are aromatic and formerly used as a drug.

Carrot (*Daucus Carota*).—The wild Carrot is extremely common; when ripening the umbels close up, forming so-called "birds' nests" in the country. It is the origin of the garden vegetable. The long and short forms (like those of Radishes) originated by being grown in a loose and stiff soil respectively, but are now hereditary, as after careful selection they come true by seed. A spirit has been distilled from Carrots on the Continent, as it contains an abundance of sugar, which is readily converted into alcohol.

GEORGE HENSLAW.

GARDENING OF THE WEEK.

THE FRUIT GARDEN.

HARDY FRUITS.

STOP all strong growths on Peaches and Nectarines, and keep the shoots neatly trained in to let in light and air. The heavy rains we had last month thoroughly soaked the borders; the trees are healthy, vigorous, and free from insects, and promise to ripen up a crop of fine fruit, but owing to the lateness of the season Walburton, Late Admirable, Barrington, and other late sorts will need timely attention to every point to get the fruit forward and the wood perfectly ripened before bad weather sets in. To this end early afternoon syringing with water at a temperature of 80° will do good service, and an occasional surface watering with tepid water will add to the size and improve the quality of the fruit. Complete the thinning of fruit on walls and stop all lateral growths, as every ray of sun and light will be needed, and even then many of the choice sorts will be found deficient in flavour. Cut away the old canes as soon as Raspberries have done bearing, and thin out all the weakest shoots of the current year to let in light and air. Tie up those left to prevent them from being injured by the wind, and keep the beds free from weeds.

VINES.

Early houses in which the wood is getting ripe may now be freely ventilated by night and by day, and more mulching may be spread over the inside borders to keep the roots moist and active. Syringe well every evening to preserve the foliage as long as possible, and while shortening back all strong laterals to strengthen and plump up the fruit-bearing buds, allow weaker growths to have full play until the main leaves begin to ripen. If any of the Grapes have not finished well, the roots should be lifted and relaid in fresh soil, or a portion of the old compost may be taken away and replaced with rich loam before this month is out. The mode of procedure having so often been described in these columns, it is only necessary to advise despatch in the operation.

MID-SEASON HOUSES.

With every prospect of a change to brighter and better weather, it may be well to remark that black Grapes now ripe will keep best where the foliage is dense, but lacking this somewhat shading may be thrown over the roof until the fruit is out. On the other hand, white varieties colour and keep well, and Muscats take on the finest amber where sun, heat, and light can play freely through the foliage on and around the bunches. Should our hopes of brighter days be realised, fire-heat will only be needed to prevent moisture from condensing on the berries, and to admit of a free circulation of dry, warm air through the night. Keep the foliage clean by putting in a syringe of clean, soft water whenever it can be applied without damage to the fruit. Damp the floors well on fine days, and see that the inside roots are kept moist by the application of warm water whenever needful. Muscats and late Grapes now colouring will stand a high day temperature with plenty of air and sufficient moisture to keep the foliage fresh and healthy. If the main foliage in the Muscat house is clean and good the laterals may be well

shortened back to let sun-heat and light into the wood and fruit; but Lady Downe's and other black sorts will colour under a thick canopy of foliage provided the primary leaves are not crowded or injured by an unreasonable quantity of lateral growth. When colouring becomes general another heavy watering with warm liquid will greatly benefit the Vines by producing conditions unfavourable to spider, while its stimulating effects will result in a depth of colour and bloom which the fruit on half-starved Vines never possesses.

Madresfield Court Gardens.

W. CRUMP.

KITCHEN GARDEN.

LETTUCE.

THIS is a good time to sow a large breadth for standing the winter, to be transplanted in early spring. The ground should not be too rich for this sowing or the growth made will be sappy and unable to withstand the winter. This is an important crop, and a piece of ground should be selected on a warm and sheltered border having a south or south-west aspect. Dig the ground and tread firm, afterwards raking to a fine tilth and level to receive the seed, which should be sown broadcast. By covering with a mat for a few days the seed will germinate quickly and the birds will be prevented from disturbing the soil, as they often do when the surface is dry. When the seedlings are large enough thin out the weakest to allow the remaining plants to stand clear of each other so that they may develop properly and become well hardened before winter. Of Cos varieties the old black-seeded Bath is unsurpassed for hardiness, and Hick's Hardy White is excellent if not exposed to exceptionally severe weather. Stanstead Park is one of the best of the Cabbage type; it stands the winter well, and turns in very early in the spring. Continue to put out on rich ground strong plants of the summer varieties for lifting and bedding in pits and frames for a late autumn supply.

VEGETABLE MARROWS.

The season has not been a good one for this delicate vegetable, and those who depended entirely upon plants raised under glass, and planted out in the orthodox way in June, will not obtain heavy crops, at any rate not until late in the year, when there is danger of the plants being cut down by frosts. It is in such seasons as this and 1902 that the good results accruing to the system of planting very early on hot-beds, and gradually hardening them off, finally removing the frames altogether, are fully demonstrated. So excellent is this plan that I shall not again depend upon the open air method of growing this invaluable crop. By adding fresh soil to the plants as growth proceeds, and layering the young shoots into it, the vigour of the plants is maintained, and an abundance of Marrows may be had until quite late in the autumn.

ONIONS.

The large specimen bulbs are now swelling fast, and there is promise of some clean and heavy produce. Some employers are very partial to these large and quickly-grown Onions, which partake of the flavour and mildness of the Spanish sorts of the shops. Provided they are well grown they keep well and firm for several months. The main crop is very backward this year, like most other root crops. At the time of writing the bulbs are not more than half grown, and the tops are showing no signs of ripening, as they usually do about this date. Should mildew attack the tops whilst growth is still active, they should be dusted with flowers of sulphur or soot in the early morning when the dew is upon them. A weekly application of liquid manure or guano will now assist the bulbs materially if not ripening off.

Stonleigh Abbey Gardens.

H. T. MARTIN.

FLOWER GARDEN.

LAWNS, WALKS, AND BORDERS.

THESE should now be kept in good order. Hedges should all be clipped, bearing in mind that the narrower these are kept at the top the less naked they will be at the bottom. Clip Box edgings, choosing dull or cloudy weather for the operation.

Cut in Laurels and other shrubs that are overgrowing adjoining plants. Cut out decaying stalks of herbaceous plants from among the fresh foliage at the bottom, remembering that the latter should not be shorn off at the same time, as is sometimes done. Continue to tie up plants requiring support, and train creepers. Roses on walls should be nailed in. Rock plants will need attention; many of them will require to be kept from overrunning their proper bounds. Seeds of choice flowers should be gathered as they ripen.

TROPEZOLUM SPECIOSUM.

Young plants should now have their shoots carefully guarded from slugs and field mice. The latter are most destructive, often cutting through growths yards in length. This Flame Flower is worthy of much attention and perseverance in establishing it. The after-treatment is simple in the extreme and the reward great.

SUMMER CHRYSANTHEMUMS.

These had a hard time of it in the early part of the season, but are now doing well and will need attention in the way of staking, as the stems are liable to be broken by high winds. Select stakes of a size to suit the height of the individual plants, and simply loop the larger of the branching shoots to them. Staking and tying the growths are important items in their culture, and the plants should be well in hand before the strong winds cause havoc among the growths.

BIENNIALS

are plants of two years' duration, the seed being sown the first year, and the flowering, seed-bearing, and death occurring the next. Many of them, however, may be continued for a longer period if prevented from seeding. Many of these ripen their seed in August or September, and should be sown immediately. Those that do not ripen till a later period may be kept till the April or May following. Double varieties of biennials can only be continued by cuttings.

CANTERBURY BELLS

may now be planted direct from the seed-bed to the places where they are to flower. These come in very useful for filling gaps occasioned by the passing out of flower of early annuals. Foxgloves should also be pricked out on good soil in beds where they will make good plants before being finally planted out in the autumn. The Hollyhock (although not a true biennial), if raised from seed, should now be ready for pricking off into well-drained boxes filled with a mixture of loam and leaf-mould.

T. B. FIELD.

Ashwellthorpe Hall Gardens, Norwich.

INDOOR GARDEN.

FREESIAS.

THESE lovely and useful bulbs are to be found in almost every garden, and as they have now enjoyed a long period of rest, where a large stock is grown, shake the old bulbs out of the soil and select them into three sizes. The largest should be used for extra sized pots of 7 inches diameter. Twelve to fourteen bulbs in a pot of this size should make a fine object for a vase for the drawing-room. The next sized bulb should be planted eight or ten bulbs in a 5-inch or 6-inch pot. The small sized bulbs are best planted in shallow boxes, 2 inches apart, with the primary object of producing strong bulbs for another year, and in this case the flowers should be cut as soon as they are open. Freesias like light rich porous soil, about two-thirds light loam and one-third leaf-soil, with sufficient sand to keep the whole open; a little Clay's Fertilizer may be incorporated with it. Make the soil rather firm in the pots, and plant the bulbs $1\frac{1}{2}$ inches to 2 inches deep; the largest ones should be 2 inches. Give the soil a light watering, just sufficient to damp it through, and stand them under a stage in a cold house or in a frame, and allow them to dry until the next day, when a light covering of leaf-soil or fibre may be given to them. This may remain until the young growth approaches an inch in length, when they must be placed on a side stage or on a shelf in a somewhat close greenhouse and given full light.

HIPPEASTRUMS.

The thorough ripening of these bulbous plants is now the most important item in their cultivation. Give abundance of air with the full sunlight on all bright days, and, if the pots are plunged, watering must be gradually withheld until the first or second week in September, when they should be dry enough to store away in a room or shed.

CINERARIAS AND PRIMULAS.

Attend to the potting as they require it, and do not allow them to become pot-bound until they are placed in flowering sized pots.

POINSETTIAS.

Where it is necessary to pot up a number of the old out-back plants no time should be lost in doing so. These generally produce smaller bracts than the young plants, but are most useful for cutting. Give the young stock plenty of light and air to prevent a drawn growth.

CROTONS.

This is a good time to put in a few dozen tops of the strongest shoots. These should be selected for good foliage and colour, and if placed firmly in fine peat and sand, in 3-inch pots, which should

and discontinued its use. A great number have been too cautious to risk placing their Orchids entirely in leaf-mould, for the simple reason that the majority are epiphytal plants, and to pot them entirely in leaf-mould much in the same way as one would a general plant in ordinary soil would be entirely against the laws of Nature, and for a considerable time viewed the subject in the same light. Though I can imagine that epiphytal Orchids do come in contact (in the forks of trees, &c.) with decaying vegetation to some extent, yet in the majority of cases we find that they grow almost free from any rooting material whatever, merely clinging to the branches in a manner that Ivy clings to our walls. However, experience teaches us that it is not altogether necessary to abide entirely by Nature's laws, for we find that many plants grow in a rooting material which they seldom, if ever, come in contact with in their native habitat. Regarding the same I may here mention an instance concerning the beautiful Cattleya Mossiae, which is not one of the easiest to grow, for we find that after a few years—that is, when they have lost their native vigour—they do in many cases greatly deteriorate, especially the



CATTELEYA MOSSIAE IN LEAF-MOULD IN THE GARDEN OF MR. PITT, ROSSLYN, STAMFORD HILL, NEAR LONDON.

be plunged in a sharp bottom-heat in a close case, they will make smart little plants for the winter in rooms.

EXACUM MACRANTHUM.

Those who possess a few old plants that have finished blooming should now cut them freely back and place them in a warm growing atmosphere, where they will quickly break into young growth, from which cuttings may shortly be taken to produce next year's stock of plants.

Wendover.

J. JAKUES.

ORCHIDS.

ORCHIDS AND LEAF-MOULD.

MANY comments have been made in THE GARDEN with regard to the cultivation of Orchids in leaf-mould. By some it is severely condemned, while others are greatly in favour of its use. Some by their experiments have met with great success, while others through failure have become disgusted with the material

Albino section. At a gentleman's establishment in this district, situated a short distance from these gardens, a number of Cattleya Mossiae have grown for the past twenty years, and not a bit of peat or moss has been taken on the place; the plants have been grown by the same gardener for the past fifteen years. The plants bloom well annually, and are in excellent condition. When the plants have required repotting pots have been taken and crooked in the same way as for general things, and they have been repotted entirely in fibrous loam broken to pieces about the size of a Walnut, a little sand or the rubbish from the potting bench mixed with it, and a few crocks to allow a free passage of water, and the soil is not pressed firm. Upon turning the plants out of their pots each time they were repotted the roots were found to have worked freely among the lumps of loam in all directions without actually penetrating them. At the same time, I should never be induced to pot an epiphytal Orchid in any portion of loam nor advise any one to do so, yet the above instance is sufficient to prove that epiphytal Orchids do and will thrive in a material they never come in contact with in their native home. This is what we find with regard to growing

epiphytal Orchids in leaf-mould. If these do not grow in leaf-mould in their native home we find they are better here (even in a London suburb) than in peat and sphagnum moss, not that a vast number of plants have here been experimented with, but sufficient to prove the value of the new material. In many cases the *Lælias*, *Cattleyas*, and *Lælio-Cattleyas* (which are the principal subjects of this note) have produced three growths in one year, and the way they break double and produce young growths from the backward eyes is remarkable.

The accompanying illustration represents *Cattleya Mossie* in leaf-mould. At the beginning of 1901 it had four bulbs and one lead, the same plant this season bearing twelve blooms, and now has eleven bulbs and seven leads, four of the latter showing flower sheaths.

I do not intend to convey that these are fine cultivated or well-bloomed specimens, but merely to show the rapid way they increase when grown in leaf-mould, and at present there is every indication that the plants will continue to do so.

REPORTING THE PLANTS.

When repotting clean pots are prepared, and one large crock is laid over the bottom with a few others or Fern roots as a substitute laid to the depth of about 1 inch more or less according to the size of the pot. Over these is put a thin layer of moss, freeing the roots from all old material or planting them intact as the case may demand. The plants are placed in their pots in the usual way entirely in leaf-mould, just as received from Messrs. Sander, St. Albans, merely picking away pieces of stick, stones, &c. The material is worked in among the roots or around the ball of the plants, and pressed moderately firm with a few crocks laid among it to allow a free egress of water. Sufficient space is left for a surface layer of fresh sphagnum moss.

WATERING THE PLANTS.

This is of the utmost importance, and special care must be taken to see that the plants are not over-watered, for if they are kept for any length of time in a saturated condition the roots will in consequence decay and the result prove disastrous. At the same time they must not be kept too dry at the roots or the plants would shrivel too much and the growths would most certainly be checked, especially during summer, and when the plants are growing. I think in some cases that beginners through fear of over-watering have gone to the extreme and kept the plants far too dry. Lightly sprinkling the surface instead of properly watering the plants when they are dry is a practice that should most certainly be guarded against. There are certain exceptions, for instance if we know that a plant has no roots other than on the surface, then a surface watering would suffice, but with plants that have become well rooted, these should, when they have become properly dry, be thoroughly watered, that is, given sufficient to moisten the whole material. If strict attention is given to these items when watering the plants there is no difficulty in cultivating *Lælias*, *Cattleyas*, and *Lælio-Cattleyas* in leaf-mould (providing other conditions pertaining to their culture are right), even near cities or large towns, and far better results may be anticipated in the pure fresh air of the country districts.

F. W. THURGOOD.

Rosslyn Gardens, Stamford Hill, London, N.

FLOWERING OF VANDA TERES.

At the recent show of Orchids, organised by the Société National d'Horticulture, several plants of *Vanda teres*, forming little bushes more than a metre in height and bearing numerous flowers, were observed in the collection exhibited by M. Opoix, head gardener at the Luxembourg. These plants were much noticed, for it is not easy to grow *Vanda teres*, and it rarely flowers in European collections. The collection of Baron F. de Rothschild at Waddesdon Manor, which contains many marvels, is especially celebrated for its magnificent *Vanda teres*; indeed, they are said to be without a rival in the world. Those of the Luxembourg can, however, well bear comparison. They do

great honour to the ability of M. Opoix, who is one of our best cultivators of Orchids. Our readers will, no doubt, be glad to have some hints on the process of culture used by M. Opoix. The most important point is this: the plants are kept absolutely dry during the winter, so much so that the leaves wrinkle up and present an appearance that would sadden the heart of those cultivators who are so eager to use the watering-pot. Nevertheless, the health of the plants does not suffer from this dryness, in fact, the effect is just the opposite.—*Chronique Horticole*.

NURSERY GARDENS.

MR. JAMES DOUGLAS,
GREAT BOOKHAM.

GREAT BOOKHAM is situated in a delightful part of Surrey, some three miles distant from Leatherhead, and it is there that Mr. James Douglas grows the Carnations for which he is so well known. On the occasion of a recent visit to Great Bookham the houses presented a beautiful sight—they were full of Carnation plants in flower. The variety was bewildering, Carnations of all types—selfs, fancies, bizzarres, and flakes—helped towards the display. *Malmaisons*, too, were included, but most numerous of all, perhaps, were the yellow ground fancies. Mr. Douglas has done much towards improving these flowers by the introduction of varieties of robust constitution, which bid fair to supersede the older and weakly varieties for border culture.

The new Carnations at Edenside are always of interest, and among them we may mention the following: Bookham Clove, large, pure white, Clove scented, with well-formed petals; Badoura, clear deep yellow, with rose margin; Othello, a Picotee with yellow ground and broad margin of crimson; Horsa, a yellow ground fancy, heavily marked and margined with crimson; Rabelais, clear yellow, with purple margin; The Dawn, bright pink, very free, an excellent variety for border culture; Yeoman, a white ground fancy, heavily marked with crimson; Mrs. Guy Sebright, light rose, a vigorous grower; Ivo Sebright, a sport from the preceding, flaked with heliotrope; and Lady Wolverton, rose-pink. Among the older and better-known sorts we noted *Artemis*, scarlet, flaked and streaked with lavender; *Bendigo*, bluish purple, quite a distinct attractive colour; *Guinevere*, buff ground, striped and marked with pink; Miss Audrey Campbell, a yellow self, large flowers; Lady Hermione, rose self; the blooms of this variety, which has received an award of merit from the Royal Horticultural Society, are of perfect form and always much admired; Mrs. Eric Hambro', white, large, and of excellent form; Seymour Corkran, a distinct shade of amber; this variety has also received an award of merit from the Royal Horticultural Society. Sweet Lavender is a fancy well named, the flowers are heavily marked with lavender upon a pale apricot-coloured ground. Trojan is still one of the finest white selfs, and Agnes Sorrell, dark maroon, among the finest dark Carnations.

Of yellow ground Picotees Mr. Douglas has a splendid collection, all the best varieties raised by Mr. Martin Smith and himself being included. Among so many really beautiful flowers it is difficult to mention a few as being of superior merit; but we may mention the following as especially fine: Childe Harold, flowers of elegant form, with deep rose margin; this variety has received several first-class certificates, and for three successive seasons won the prize given for the best bloom at the National Carnation Society's show; Borderer, bright yellow, edged with bright red; Lauzan, a distinct flower, clear yellow, with purple edge; Lady St. Oswald, margin of petals bright red; Galatea, with rose-red margin; Alcinous, lemon-yellow, margined rich purple; Diana, clear yellow, with broad scarlet margin; and Rosalind, a lovely Picotee with broad rose margin.

Mr. Douglas now has quite a number of varieties of *Malmaisons* raised by Mr. Martin R. Smith, and if they do not supersede the old blush and pink sorts they at least provide very welcome variety of colouring. Calypso, pale rose; Horace Hutchinson, rich scarlet; Mrs. Trelawny, dark salmon; Sir Charles Freemantle, very large, rich rose-pink; Iolanthe, bright rose; and Nell Gwynne, white, are among the most distinct. Mr. Douglas also has an extensive collection of show Carnations, by which are meant bizzarres and flakes. There are scarlet, crimson, pink, and purple bizzarres, purple scarlet, and rose flakes, and there are varieties of each of these types. White ground Picotees (red-edged, purple-edged, and rose and scarlet-edged), Tree or Perpetual Flowering Carnations and Pinks are also largely grown by Mr. Douglas, and many Carnation growers can testify to the good results obtained from his seed.

THE FRUIT GARDEN.

THE SUMMER PRUNING OF THE APPLE AND PEAR.

OF late I have come in contact with many owners of gardens much interested in gardening, and especially the hardy fruit growing aspect. I do not mean a fleeting interest, but a real practical interest in all technical details of work likely to lead to success. Few subjects connected with the growth of the Pear and the Apple appeal to them with greater force and interest than does a suggestion as to how the summer pruning of these trees should be carried out. It depends very largely on whether the summer pruning is attended to in time and in the proper way as to the returns and quality of fruit.

The remarks I am about to make refer more particularly to bush and pyramid trees, which it is desired to keep within moderate limits in somewhat small gardens. Taking an ordinary bush tree as an example, the time has now arrived to shorten the young shoots of this year's growth. The leading shoots (at the apex of the main branches, should have one-third their length cut off, and the lateral shoots growing out of the side of the branches should be cut to within seven leaves of their base. Many amateurs are very keen on knowing why it is necessary to cut the branches back in this way. To one gentleman who asked this question I was able to give an illustration of the value of the practice by showing him long barren branches on many of his trees quite innocent of fruit buds or growth of any kind, and that in the middle of his trees, where fruit should be abundant, the result of neglecting to adopt this practice. These branches were left their whole length, with the result that a few buds only, at the apex of the shoots, broke into growth, leaving the best part of the shoot—the base and the middle—barren of fruit or foliage for all time. It is to cause the furnishing of every branch in the tree with abundance of fruitful buds that the adoption of this plan is recommended. At the winter pruning they must be further shortened, the leading shoots, if at all weak, to 6 inches, and the stronger ones to 9 inches.

The lateral side shoots should be pruned back in the same way, the weak ones to two buds of their base, and the stronger ones to three. The practice of cutting away this growth in the summer affects the trees beneficially in other ways, but chiefly by the fact that their removal admits the warm rays of the sun to penetrate among the leaves and branches during late summer and autumn, helping materially to ripen the wood and develop strong wood buds. Indeed, if the summer pruning of these trees has been properly attended to, there will be very little winter pruning required. Every branch of a bush or pyramid fruit tree should be separated from another by at least 9 inches in summer when the foliage is on (in winter, of course, it will be more). Immediate attention to this important work in the fruit garden will make all

the difference in the quality and weight of the fruit crop the following season, as it will also in the building up of a handsome and fruitful tree.

OWEN THOMAS.

APPLE LORD GROSVENOR FOR AMATEURS.

In some seasons, and frequently in years of scarcity or failure, some sorts do so well that it is pleasing to note a crop, no matter what the variety or where grown. In our own case, and I have seen it in several others in the neighbourhood, Lord Grosvenor is bearing what may be termed a full crop. This is very strange, as many other trees have not got a single fruit. This points out the value of such sorts, as, though not a keeping fruit, its season being August and September, it is most valuable when others fail. I have rarely known this variety to fail, and this points out its value for amateurs who have little space and do not want too many varieties. Another point in its favour is that as a cordon-grown tree it is our best fruiter. Lord Grosvenor will grow where Lord Suffield fails. It is a remarkably free-bearing Codlin, and appears to do well in both light and heavy soil, and fruits in a very young state; indeed, so freely that thinning is necessary. With me this variety does well as a standard, and is an excellent orchard tree. The fruits are not small, and they cook well, lasting into the autumn when given cool storage.

G. WYTHES.

THE KITCHEN GARDEN.

BROAD BEANS.

ONE of the most useful summer vegetables is the Broad Bean, when the pods are grown so that they can be eaten without so much cooking to make them palatable. When in a seedy state they are coarse and of peculiar flavour. Of late years there has been considerable improvement in this vegetable, especially in the Long Pod section, a variety of which is illustrated. Doubtless the Long Pods of late years have found more favour than the old Broad Bean, of which the Broad Windsor is the type, and I am inclined to think that, in addition to a better shaped pod, the Beans also are of superior quality. Take the Giant Green variety; this seems to have been a cross between the Windsor and the Long Pod, and the result is a great gain. It possesses the size of the Windsor, with a much longer pod, containing seven to nine Beans, and these of a dark green colour, which is retained when cooked. The flavour is mild and delicate; indeed, if this is eaten in a young state, in my opinion they are equal to Marrow Peas.

There are other varieties, such as Mammoth Long Pod, Exhibition and Prolific Imperial Long Pod, and the older Johnsons, all well worth growing; and after these come the Broad Windsors, but these could easily be divided into two sorts, the white seeded and the green. I prefer the last named, and I think green Beans are of better flavour. I do not see any need for growing such varieties as the old Windsor with two or three Beans in a pod; it is much better to grow some of the newer race, which give a double crop on the same space.

The Broad Bean has got a bad name through being gathered too old. In our own case we grow this vegetable largely, but gather the pods daily. The Beans when shelled, are very little larger than Marrow Peas; this is

the best way to serve this vegetable, and those who now dislike them would probably change their opinion if they tried them in this way. I have heard it stated that it is wasteful to cook the pods so young. I do not think so, as when the pods are allowed to mature it checks growth, whereas if gathered in a young state there is less demand on the plants, and they yield for a longer time.

We get very early supplies by growing under glass early in the year and then planting out. I am aware many would hesitate to grow Broad Beans in pots, but I can safely say there are few vegetables that give a better return if planting out is done carefully, and much earlier produce is secured. The old system of sowing in October or November in an open quarter is not advisable, as the plants frequently pass through the winter till, say February, and then make new growth. Of late years this has been cut down by frost. We get much better results by sowing in a cold frame in January and planting out early in March. In this way pods are usually gathered early in June.

For late supplies the Broad Windsor section is the best. The varieties grown on a stiff soil do well, and many could eat these if the outer skin were removed before cooking. The Broad Bean should not be grown in poor land. I have referred to the cooking of Beans. On the Continent if they are at all old they are boiled and the skins rubbed off. There are several ways of cooking them to make them more appetising. I have seen them chopped up with fine Parsley and served with butter. I am aware that our old modes of cooking the Bean are mostly with bacon, but I think the best way is to cook the bacon first and then the Beans, as if cooked with the bacon it spoils the colour of the Beans.

The culture of the Broad Bean is so simple that few words are required. I have referred to an early lot raised under glass. Another sowing should be made in the open in February or as soon as the ground is workable, another three weeks later, a sowing in April, and another in May, will give a long supply; the two last sowings are made on an east or north quarter, and if possible in heavy soil or a moist position. The plants should be topped early to get pods low down the stems and a sturdy plant.

G. WYTHES.

TURNIP-ROOTED BEETS.

THE original name given to the first type of this Beet—the Egyptian Turnip-rooted—lends belief to the assumption that it was of Eastern origin. A standard like "The Vegetable Garden" (Vilmorin and Co.) makes no mention of the probable origin of the type, but catalogues of vegetable seeds published in the seventies are found stating that the "Turnip-rooted Beet is a new introduction from Egypt." The first of these Beets was flat, like a Milan Turnip, and irregular in outline, but careful selection has done much to impart symmetry of shape to newer introductions.

The Americans did much both to popularise and improve this type of Beet; probably the greatest advance has been made by home growers, and we have now Turnip-rooted Beets as handsome in shade as the finest type of model Turnip, of a deep bright crimson exterior, the flesh deeper still in colour, uniform in tint throughout the ball of flesh, tender and crisp. It has been said that "crimson-leaved Beets are all very rich in flavour," but the paler the flesh the less is there of a saccharine flavour.

The great value of the Turnip-rooted Beet lies in their earliness, which makes them invaluable for forming a part of a collection of vegetables exhibited early in July, and also because it is so well adapted for culture on both heavy and shallow soils, forming its bulbs upon the surface, and therefore secure from obstacles in the soil which might affect its shape.

When at Boston, a few days since, I had an opportunity of inspecting a most interesting trial of Beets and other vegetables in the seed trial grounds of W. W. Johnson and Sons, Limited, wholesale seed growers of Boston. Here is a deep and fertile black-brown loam of good heart and considerable depth, a model soil for vegetable culture. Of several stocks of Turnip-rooted Beets being grown here, Sutton's Globe was undoubtedly the best, and was represented by a very fine stock indeed; earliness, shape, and colour, all distinguishing characteristics; in outline perfect, the skin of a deep bright red colour, the flesh deep dark crimson, and uniform in tint throughout. This is a stock W. W. Johnson and Sons are growing largely. Mr. E. J. Deal, the manager of the firm, said that he had made trials of all the new Turnip-rooted Beets from America, but could find no advance on the Globe, either for earliness, colour, and shape. So far the Turnip-rooted Beets generally have green leaves, or only slightly tinted with colour. Mr. Deal is selecting a type with a leaf as bright in colour as that of any long Beet in cultivation. In the description given of an American selection known as Henderson's Crimson Globe, it is said to possess very large leaves, so it would seem that the American seed growers are proceeding along the same lines. It can be observed that small allotment holders are growing the Turnip-rooted Beets, and find it profitable to do so.

R. DEAN.

STRAP-LEAVED TURNIPS.

THE original white strap-leaved Turnip was of American origin, and was introduced to English gardens half a century or so ago; the leaves, instead of being lobed, as in the case of ordinary Turnips, were almost, if not quite, entire their whole length. Subsequently, a red-topped variety was selected, the Turnip itself being flattish-round instead of globular. The Milan Turnips, so useful on account of their earliness, are also strap-leaved; it is a type that is earlier and more refined than the ordinary strap-leaved, and whiter in the flesh.



THE GREEN LONG POD BEAN.

The Milan, a fine type of the Snowball, and also one of the Golden Ball, are the best garden Turnips. R. D.

SOCIETIES.

GREAT MARLOW HORTICULTURAL SOCIETY.

THE ninth annual exhibition of the above society was held on the 4th and 5th inst., and, notwithstanding the fact that the weather of the past few months has been very prejudicial to gardening in the district, an excellent display was brought together. Many of the gardens have been flooded, and operations have had to come to a standstill on several occasions, or the present gathering would probably have been the best of the series; as it was it proved to be the most creditable of the past three or four seasons. The arrangements, in the hands of Mr. A. D. Cripps and an energetic committee, were as good as could be wished for.

The centre of the large marquee was devoted to the groups and the specimen flowering and foliage plants, in both of which there were some grand exhibits. Mr. E. Riley, Marlow (gardener, Mr. T. W. Jordan), was first for a group of plants arranged for effect on a space of 72 square feet. The Begonias, Crotons, Hummers, and Greivilleas were all splendidly grown plants, and they were admirably staged. Sir W. Clayton, Marlow (gardener, Mr. J. Sharpe), was second with a display that had not sufficient flowering plants in it to produce the finest effect.

In the class for three specimen plants in flower, Mr. T. W. Jordan was again first, followed by Mr. E. Hay-Murray, Marlow (gardener, Mr. T. Blackmore), and Mr. J. Sharpe in the order named. In the winning set of three foliage plants, Mr. J. Sharpe had a grandly grown example of *Alocasia macrorrhiza variegata*, which was certainly one of the best plants in the show. Mr. T. W. Jordan was second, and Mr. T. Blackmore third. The latter included an enormous *Aspidistra* that would easily have made a score of respectable plants. Ferns, Caladiums, Fuchsias, tuberous-rooted Begonias, zonal Pelargoniums, Coleuses, and other plants were all admirably shown by the growers named above, by whom the whole of the prizes were divided. Mr. Jordan's Fuchsias and Begonias were magnificent.

There were several classes devoted to cut flowers, and in many cases the exhibits were above the average in the quality of the blooms, but they lost in effect through heavy staging. It was noticeable here again, as in the classes to which allusion has already been made, that Messrs. Jordan, Sharpe, and Blackmore annexed the bulk of the awards. Mr. A. D. Cripps, Marlow (gardener, Mr. J. Weaving), had the best annuals, splendid flowers, whose beauty was well-nigh lost by the crowded manner in which they had been dumped into the vases.

Fruit was creditably shown in the majority of the classes, the Peaches, Nectarines, and Madresfield Court Grapes, included in Mr. Blackmore's winning collection, being especially fine. Black Hamburg Grapes were not as good as usual, the season having been against the colouring. Sir H. V. Neale, Marlow (gardener, Mr. G. Martin), stepped in and won several prizes in this section, showing very strongly in some cases. Vegetables were handsomely staged by the exhibitors named, and also by Mr. R. C. Lehmann, Marlow (gardener, Mr. C. Goodman), who was conspicuously successful. Table decorations and bouquets of wild flowers were shown in immense numbers, but except the table of wild flowers there was nothing particularly meritorious.

In the non-competitive section, which was such an excellent feature of the show, Mr. R. W. Hudson, Danesfield, Marlow (gardener, Mr. J. Gibson), sent a most beautiful group of plants, which were not only well grown but admirably arranged; this was one of the best exhibits in the entire exhibition. Mr. T. Blackmore also sent a fine group "not for competition." The trade supported the fixture in a most praiseworthy manner. Mr. C. Turner, Slough, contributed some charming Roses; Mr. E. F. Such and Mr. W. Henley, both of Maidenhead, showed exceptionally good herbaceous flowers; Messrs. J. Laing and Sons, Forest Hill, arranged well-grown Caladiums, Palms, tuberous-rooted Begonias, Dracenas, and other plants; and Mr. R. Owen, Maidenhead, staged in an artistic manner a group of Begonias, Francoas, and Eulalias.

UPTON SHOW.

THIS popular Cheshire event was held on Wednesday, the 12th inst., in the grounds at Upton Lawn, kindly lent by Mr. J. M. Frost, who during the day held a garden party, at which many of the best local families were represented. There was a slight falling off in the number of entries, these being more than compensated for by the even quality throughout. The centre of interest was undoubtedly the table decorations, some very charming effects being accomplished. Nothing could have looked richer than the first prize, set up with excellent taste by Miss J. S. Robinson, and composed of *Scabiosa caucasica* intermingled with *Gypsophila paniculata*; the second went to Mrs. MacGillcuddy for white and yellow Begonias and Maidenhair Fern; third, Miss Linda Frost for Iceland Poppies and Asparagus plumosus. The groups arranged for effect from Mr. B. Glegg (gardener, Mr. J. Ford) and Major MacGillcuddy (gardener, Mr. E. Stubbs) were deserving of much praise, the latter gentleman with well-coloured Caladiums, Crotons, Acalyphas, Dracenas, Eulalias, and capital Lilliums and Celosias, making a noble effect.

In the herbaceous section the cut flowers, such as *Alstroemeria aurea*, *Gaillardias*, *Phloxes*, *Helenium pumilum magnificum*, and Lilliums, Miss Humberston (gardener, Mr. R. Wakefield) set up a most convincing stand; second, Mr. W. H. Walker. The Carnations and Picotees from the former were of excellent quality. Roses—from Major MacGillcuddy were in fine condition, as were the Coleus from Mr. W. B. Moss.

Indoor fruit was not a strong competition, Major MacGillcuddy taking honours with Buckland Sweetwater and Mr. F. Richmond with Black Hamburg and the collection.

Others successful in classes were Miss Humberston and Messrs. J. M. Frost, F. Richmond, B. Glegg, and W. B. Moss. A splendid collection of Carnations came from the gardens of the late Judge Wynne Foulkes, and Roses and herbaceous plants in capital condition from Messrs. Dicksons, Limited, Chester.

DUTCH HORTICULTURAL AND BOTANICAL SOCIETY.

AT a meeting held on June 24 last first-class certificates were awarded to the following: *Ondotoglossum crispum* var., from Mr. W. C. Baron V. Boetzelaar, at Maartensdigh, and to *Rosa polyantha* (seedling), an improvement on *Ruphrosyne*, from Messrs. Gratama Bros. and Co., Hoogeveen. Certificates of merit went to the following: *Delphinium* hybridum Prof. Van Thersom, from Mr. W. V. Veen, Leiden; *Biota orientalis aurea* (seedling), from Mr. A. Spaargaren, Hulsiner; *Cattleya Mendell* variety, from Mr. P. W. Lutvans, Baarn, and to *Dianthus plumarius Moehelimi*, from Mr. B. Ruys, Dedemsvaart, and to *Papaver orientale Mahoney* from the same exhibitor. A cultural commendation went to Mr. J. M. Goes, for a specimen *Gnaphalium Leontopodium* (Edelweiss), and a silver medal for a collection of hardy perennials from Mr. B. Ruys, Dedemsvaart.

At a meeting of the society on the 29th ult., first-class certificates went to the following: *Anthurium J. H. Tromp* Meesters, from Mr. J. H. Tromp Meesters, Steenwigh; *Begonia Fleur de Neige*, *Chrysanthemum frutescens Sahuret*, and *Fuchsia Andenhean* Heinrich Henkel, from the General Adrean van Suleten Juijnbrooschool, at Frederiksoord; to *Canna indica Jumm*, from Messrs. Van Namen Bros., Zurijsrecht. Certificate of merit to *Hemantus fascinator*, from Mr. A. J. Van Der Bero, Amsterdam; *Rose Lady Roberts*, from Mr. H. J. Beernit, Aalter; *Chrysanthemum segetum Helios*, and *Alamson miniata superba* both from Messrs. Groenewegen and Co., Amsterdam. A botanical certificate went to *Ageratum mexicanum crispum*, from Messrs. Groenewegen and Co., Amsterdam, and cultural commendation to *Chrysanthemum Soleil d'Octobre*, from Messrs. Bodes and Lemhes, Dordrecht, for excellence of culture, and a silver medal to a collection of *Delphiniums* from Mr. W. Van Veen, Leiden.

SHERBORNE GARDENERS' SOCIETY.

THIS is a flourishing society, having about 120 members, a large number of them being honorary, and are either business men or gentlemen in connexion with the High School; the larger portion of them take a deep interest in horticulture. Its flourishing condition is due to its having good officers, the president having held the position five years. He is chairman of the Urban District Council, and consequently has a position on the bench, an office not often held by a working gardener (he is head gardener at King's School). On a recent Wednesday Canon F. B. Westcott (headmaster of Sherborne School) entertained the members in the gymnasium. About sixty sat down to tea, the company including Major McAdam, Mr. John Dean (president), and numbers of honorary members. Afterwards the secretary (Mr. C. B. Bret) announced that letters of apology had been received from Messrs. G. F. Stokes, John Dingley, J. Pooley, Copp (Holnest), T. Turton (Castle Gardens), Stacey (Merriott Nurseries), Dyke (Milborne Port), and others. Mr. Crook, of Forde Abbey, Chard, proposed a vote of thanks to Canon Westcott for his hospitality, and congratulated the society on its able officers. Mr. L. A. Penny seconded the vote, which was carried with applause. Then followed bowling on the headmaster's lawn and various games in the gymnasium, which were succeeded by a smoking concert. Instrumental music was rendered by a string band formed by a few of Sherborne School boys, under the conductorship of Mr. Hodgson, Mr. Regan being the leader.

GATEACRE SHOW.

THE thirty-second annual fixture was held on the 12th inst., in the charming grounds of the president, Colonel W. H. Walker, M.P. The competitive section fully maintained its high position, the vegetables especially being well staged.

As usual a number of exhibits were sent from the leading gardens in the neighbourhood, and were awarded certificates of merit: Groups of plants by Mr. J. P. Barham, gardener to Colonel W. H. Walker, M.P.; Mr. C. E. Moorman, gardener to Colonel J. B. Gaskell, J.P.; Mr. R. Brignshaw, gardener to H. D. Bateson, Esq.; Mr. Jones, gardener to S. Sanday, Esq.; Mr. G. Cliffe, gardener to J. B. Atherton, Esq. For fruit Mr. T. Hayes, gardener to Miss Janlon, Mr. T. Hitchman, gardener to M. Earle, Esq., J.P., and Mr. Thomas, gardener to Mrs. Harrison. Cut flowers by Mr. J. Rothwell, gardener to S. S. Bacon, Esq., J.P., W. D. Skinner, Esq., and H. Middlehurst, Esq. Orchids by Messrs. John Cowan and Co.

The judges spoke highly of the care and success that the cottagers had shown in their gardens, and to the general success that had attended their efforts. Mr. J. Glover, secretary, has fulfilled his duties in an exemplary manner during the whole life of the society.

ROCK FERRY.

THIS annual exhibition was held in charming weather in the grounds of Mrs. Paterson on the 18th inst., which proved most acceptable after the cramped space of last year. The entries were most satisfactory, but from some unknown cause many exhibits were not staged.

In the open class for a group of miscellaneous plants arranged for effect, Dr. Cooke (gardener, Mr. G. Osborne) won with a well-arranged combination, in which Palms, Crotons, Ferns, and Caladiums made a pleasing groundwork for Lilliums, Carnations, Geraniums, *Phloxes*, and other

flowering plants. For the smaller class, G. Altin, Esq. (gardener, Mr. H. Morris) led with a bright lot, in which Caladiums and Lilliums proved highly effective; J. E. Kennion, Esq. (gardener, Mr. E. Stokes) was second with a fresh lot. Single specimen stove or greenhouse plants: Mr. G. Osborne won with a well-furnished Croton; Mrs. Paterson (gardener, Mr. Ferguson) second with a good *Cycas*.

Two exotic Ferns: E. Evans, Esq. (gardener, Mr. C. Jones) scored with a good *Nephrolepis* and a *Davallia*. Six stove or greenhouse plants: Mr. G. Osborne won with good plants, his Crotons being well coloured.

One exotic Fern: G. E. Grayson, Esq. (gardener, Mr. W. Thomas) won with *Adiantum cuneatum*.

Four stove or greenhouse plants: Mrs. E. Peel (gardener, Mr. J. Bryan) led with fresh plants.

Two Fuchsias: The same exhibitor won with small fresh plants.

Two Begonias: Mr. Thomas won with fine varieties.

CUT FLOWERS.

This section was well filled and generally good throughout. For a floral display, 4 feet by 2 feet, J. W. Hodgson, Esq. (gardener, Mr. S. Bell) won with a pleasing combination lightly arranged.

For one bouquet, Mr. J. Williams was the winner, and held the same position for flowers grown in the open.

Six bunches, stove or greenhouse: Mr. S. Bell led with choice varieties.

Twelve bunches grown in the open: Mr. J. Lee won with a very fine lot of clean and fresh flowers.

Six bunches: Mr. W. Millington had the finest out of seven good entries for six *Cactus Dahlias*, J. Clarke, Esq. (gardener, E. Pownall) scored.

Collection of Carnations: A. J. Oakshott, Esq. (gardener, Mr. G. W. Findlow) won in a strong competition.

Twelve Roses: E. Kellock, Esq. (gardener, Mr. R. Jones) scored with good blooms, and upheld his position with six varieties.

Twelve Asters and six: J. Robey, Esq. (gardener, Mr. A. Smith) won in both cases.

Twelve bunches Sweet Peas: Mr. S. Bell won with fine flowers, but lacked the finish they deserved by too cumbersome bunches.

FRUIT.

Six varieties: Mrs. Paterson (gardener, Mr. T. Ferguson) won with Grapes Muscat of Alexandria and Black Hamburg, Melon Pride of Stourbridge, Peaches Dr. Hogg and Stripling Castle, and Nectarine Pine-apple.

Hardy fruits, P. C. D. Castle, Esq. (gardener, Mr. C. Irvine) with a good lot.

Two bunches Black Hamburg, T. B. Kendall, Esq. (gardener, Mr. J. Richards), with well finished types.

Two bunches any other black, the same exhibitor scored with well finished bunches of Madresfield Court.

Six Peaches, M. Clover, Esq. (gardener, Mr. A. Crisp) won with fine fruits of Dymond.

Six Nectarines, the same exhibitor, with well coloured Red Roman.

Green-fleshed Melon, Mr. E. Stokes, with Carter's Early Favourite.

Scarlet fleshed, Mr. C. Jones, with a well netted seedling. Nine Plums, Mr. C. Irvine was first, and the only exhibitor.

Black Currants, Mr. C. Irvine had the only lot; and for red Mr. J. Richards proved the winner; white, Mr. A. Crisp. Raspberries, Mr. W. Millington; Cherries, Mr. A. Crisp; Gooseberries, Mr. J. Lee; Apples, culinary, Mr. J. Bradshaw, with large fruits; dessert, Mr. H. Davies; Pears, the same exhibitor.

VEGETABLES.

These were of uniform good quality, showing that in this adverse season good specimens may be obtained by careful culture.

For nine distinct kinds, H. D. Treilawny, Esq. (gardener, Mr. J. Clarke), scored with fine examples of Cauliflower, Celery, Carrots, Onions, Turnips, Scarlet Runners, Tomatoes, and Potatoes; G. H. Pilkington, Esq. (gardener, Mr. J. Little), an excellent second. Three dishes Potatoes, Mr. J. R. Carter won with clean even tubers. Twelve Tomatoes, Mr. J. Clarke scored with excellent fair sized fruits of Polegate, and for six fruits Mr. H. Davis proved the winner. Two Cucumbers, Sutton's Malcheen, Mr. J. Clarke; one dish of Peas, the same exhibitor, with large well-filled pods; Broad Beans, Mr. J. R. Carter, with large pods; French Beans, Mr. J. Lee, with an unnamed dish which was noticed throughout the whole of this section; Scarlet Runners, Mr. J. Clarke.

The amateurs and cottagers' section was well filled with exhibits highly creditable to the competitors, the vegetables especially showing good culture.

Awards of merit were made to Mr. H. Middlehurst for a collection of Sweet Peas set up in his well-known style; Mr. Smith, group of plants, and Mr. Ernest Bell for cut Pansies. The arrangements were under the direction of Mr. T. B. Kendall, chairman, and Mr. R. Theaker.

EAST ANGLIAN HORTICULTURAL CLUB.

AT the August meeting of this club members did not turn up in quite such strong force as usual owing to the holiday season. The president (Mr. J. Powley, F.R.S.) read an interesting paper upon "British Ferns in Norfolk." There were nineteen species out of a total of thirty-four natives of Britain to be found in the county of Norfolk, and many districts (notwithstanding the hawkers) still produce fine plants of the families of the *Pteris*, *Ceterach*, *Osmunda*, *Lastrea*, *Polystichum*, and *Asplenium*. He also explained the methods of making hardy Fern rockeries and the most suitable varieties, but he strongly urged those present that if they found an uncommon variety not to grub all of it up when a small plant would suffice.

Mr. H. B. Dobble, Pine Banks, Thorpe, also read a paper entitled "Our Bird and Insect Allies." Mr. Dobble has long been a close observer of the flora and fauna of Norfolk, and the remarks he gave of the various foods of our feathered friends, many of which he had examined to discover the

contents of their crops, showed the enormous appetites, yet usefulness of these friends of the gardener. Although the insect world produced the worst of garden foes, yet Nature had somewhat balanced itself by insects to destroy these. Unfortunately, human agencies in destroying the foes destroyed the friends, some measure of which was due to the fact of their not being sufficiently known.

A capital discussion followed both papers. The exhibition tables were well stocked with grand examples in all fruit, flower, and vegetable sections. In the non-competitive section Mr. George Davison, Westwick House Gardens, brought up a charming collection of Montbretias, including the new seedling named after himself, and an unnamed variety after the style of Germanica, but of a more reddish tint. Hobbies, Limited, sent up two blooms of the curious coloured striped H.P. Rose of French origin (Roger Lamberton).

In the competitive classes the most striking feature was a special prize for six varieties of Carnations, three blooms each, offered by Mr. J. F. Betta, Park Lane, Norwich, who is an ardent admirer of this flower. Mr. A. Hipper, Eaton, was the fortunate winner out of seven stands, his blooms of the new variety, Heckington, coming in for much commendation. Mr. E. C. Ramus, Ethebert, and Mr. C. H. Hines, Trowse, were first and second for special prizes offered by Messrs. Daniels Brothers, Limited, for the best dish of their No. 1 Tomato. The second section of the competition for the silver bowl, presented by Mrs. E. T. Boardman, took place, Mr. F. Carrington taking twenty-two points against twenty-one by Mr. C. H. Hines.

The monthly competitive exhibition was well filled, and some close contests were witnessed. For Peaches Mr. F. Williams, Old Catton, had some well finished fruit, and the Apricots (outside grown) from Mr. C. H. Hines, Trowse, considering the adverse season, were very fine. This latter exhibitor also secured many points for vegetables, his Cauliflowers being the best shown. Mr. C. H. Fox (gardener to Sir E. B. Mansel, Bart.), Old Catton, achieved the fine performance of taking first for Plums, Gooseberries, Tomatoes, and Peas, and these from a garden somewhat high and light land. A silver medal given by the Ichthemio Guano Company for the best three single Fuchsias was won by Mr. W. Eash, Thorpe Hamlet.

WILTS HORTICULTURAL SOCIETY.

THROUGH the kindness of the Lord Bishop of Salisbury, the annual exhibition was held on the 12th inst. in the charming grounds attached to the Palace, and was in every way a success. The committee, under the able guidance of Mr. Sly, the energetic secretary, deserve success, providing as they do so good an exhibition, and such charming music as that supplied by the band of the Royal Marines from Portsmouth.

PLANTS.

If not numerous, possessed much quality. There were several divisions, space, however, will not admit of a full detailed account, but rather a summary of the leading features.

For a group of miscellaneous subjects arranged for effect in a space 16 feet by 9 feet, Mr. A. Robey, gardener to Colonel Loyd, Harnham Cliff, Salisbury, won the premier award; Mr. A. G. Bedford, nurseryman, East Harnham, Salisbury, was second.

In the class for nine specimens, four in flower and five foliage, Mr. G. Hall, gardener to Louisa Lady Ashburton, Melchet Court, Romsey, was the only exhibitor, but so good were the bulk of his specimens that he was worthily awarded the premier prize. Allamanda Hendersonii was marvellous.

Ferns were finely staged by Mr. Hall, who won easily for six with Davallia Mooreana, fully 8 feet in diameter. Coleus were grandly coloured, neatly trained, dwarf plants, the best six coming from Mr. J. Pickett, gardener to E. F. Pye Smith, Esq., Salisbury.

CUT FLOWERS.

were numerous and good. For twenty-four Roses, not less than sixteen varieties, three competed. Mr. W. Neville, gardener to F. W. Flight, Esq., Cornstiles, Twyford, Winchester, was an easy winner with really good blooms of Beattie Brown, A. K. Williams, Marie Baumann, Mme. Hoste, White Lady, Caroline Testout, and Souvenir de Pierre Notting; Dr. Beaton, Lynton, was second.

Cactus Dahlias were numerous and good. For twenty-four in not less than twelve varieties, Mr. J. Bryant, Salisbury, was an easy winner; Mr. H. H. Mills, gardener to W. H. Fletcher, Esq., Pye House, Salisbury, second; Mr. J. Page, gardener to Miss Seymour, Knolly House, Salisbury, third. For twelve show or fancy varieties, Mr. J. Miller, Sherfield, was an easy winner; Mr. E. Rogers, Sherfield, second. Pompon Dahlias in twelve bunches of six blooms each made a great show. Mr. Neville won quite easily with neat highly-coloured blooms; Mr. A. Maple, Shirley, second; Mr. Prigden, Salisbury, third. For eighteen bunches of cut flowers there was keen competition and a good result. Mr. J. Page, gardener to Miss Seymour, Knolly House, Salisbury, was an easy first, with Pentstemon and Phloxes in variety, Tritomas, and a huge bunch of Inula macrocephala; Mr. Mills second. For twelve varieties, Mr. H. Brown, gardener to the Hon. R. Wyndham, Clouds, won quite easily; Mr. Robey second.

Carnations and Picotees were splendidly shown, especially by Mr. Neville, who won first for eighteen blooms with typical examples of Dorothy, a seedling, a yellow ground fancy with crimson stripes; Mrs. F. W. Flight, Ampton, Guinevere, Gil Polo, Oakley, Heather Bell, Bertha, Nuthall, and Comtesse Verulam; Mr. T. Welby, gardener to the Hon. L. Greville, Woodford, second; Mr. Gates third. Five competed.

Sweet Peas were magnificently staged. For twenty-four bunches, Mr. A. Maple, Aldermoor, Shirley, was an easy first; Mr. Mills, gardener to H. Fletcher, Esq., Pyt House, Salisbury, second; the Rev. J. Macdonald, Sherfield, third. Especially good were the blooms in the class for twelve bunches staged by A. C. Jones, Esq., Exeter House, Salisbury;

Mr. C. Haskins, Salisbury, second; with Mr. H. G. Ware, Chullen Leigh, third.

Table decorations are always an interesting feature here. For a table 6 feet by 4 feet, dressed with flowers, &c., no fewer than seven competed, making an attractive display. Miss M. Carv, Stratford-sub-Castle, was awarded first place with an arrangement of dark semi-double Roses, with a suitable accompaniment of greenery. Mr. R. H. Jeffery, Nurling, was second, with an especially effective arrangement of Orchids, Lily of the Valley, Francoa, and Asparagus Sprengeri. From remarks freely made during the afternoon this table was the more admired; Miss C. Burt was second. Messrs. Keynes, Williams and Co., Salisbury, won for two bouquets. For a vase dressed for dinner table decoration there were many entries. Miss E. King, Salisbury, won quite easily, as she did also for a basket of flowers, and also for a vase of wild flowers, grasses, &c., in all cases showing much taste in arrangement.

FRUIT.

is always well shown here. This year was no exception to the rule. For a collection of eight distinct sorts, Mr. Hall was an easy first; Mr. W. Mitchell, gardener to J. Willis Fleming, Esq., Chilworth Manor, a good second.

Grapes were numerous and good. Muscat of Alexandria showed a little want in finish. Mr. Mitchell was first for two bunches; Mr. Hall second; Mr. Chalk, gardener to G. Read, Esq., Salisbury, third. For three bunches Black Hamburg, Mr. Mitchell staged lovely clusters, weighing 4lb. each, large even berries and well finished, and won the premier award; Mr. Hall was second with smaller examples; Mr. Chalk third. For three bunches any other white, Mr. Hall staged exceedingly fine examples of Foster's Seedling, and secured the leading award. For two bunches any other black variety, Mr. Mitchell won with magnificent examples of Madrasfield Court; Messrs. Chalk and Hall following in the order given.

Melons were well shown. Windsor Castle won for Mr. Robey the premier award, Mr. Hall coming next with Rebeby Seedling.

Peaches were extremely fine, Mr. Mitchell winning with Sea Eagle; Mr. Hall following closely. The last named had the finest dish of Nectarines—Pine-apple; Mr. J. Page, gardener to Miss Seymour, Knolly House, second.

MISCELLANEOUS.

Messrs. B. Ladhams, Limited, Shirley Nurseries, Southampton, had a very fine display of hardy flowers, which added much to the interest of the show. Especially fine were the Gallardias Rowanham's Queen, B. Ladhams, Brilliant, Lobelia cardinalis Andrew Barlow, rich purple, was very fine; Pentstemon Newbury Gem, Chrysanthemum Maximum Monarch, an improved form of the purest white, Helianthus rigidus superblimus, a distinct advance on the type, Coreopsis Eldorado, Phloxes, &c.

Mr. Maurice Frichard, Christchurch, had an equally interesting collection of hardy flowers, particularly noticeable were the Gladiolus Nanceanus, Childsall, and Lemoine types. Kniphofias were very fine, especially Nobilis, Lemon Queen, Montbretia, Rayon d'Or, Cimicifuga cordifolia, Potentilla Vesuvius, Phloxes, &c. Some of the most striking Gladioli were Livonia (Childsall), light red, immense flowers, white mottled throat; Columbia, light orange-scarlet, extra large blooms; Ethel, soft rose, white and crimson throat; Baron Joseph Hulot, rich velvety violet. Mrs. Beecher, deep rose-crimson, pure white throat, spotted crimson; and Solfaterre, sulphur yellow, with round dark crimson spots.

BISHOP'S STORTFORD HORTICULTURAL SOCIETY.

THE thirty-fourth annual show of the above society was held on the 12th inst. at The Grange, an admirable place for the purpose. It was a great success in every way. As at most exhibitions of late years, the large plant classes were the weakest feature of the show, but in every other department there was no lack of entries, and the materials staged were excellent.

A special tent was devoted to ladies' classes, such as cut flowers and dinner-table decorations. No less than thirty-one tables were set up, and many were very beautiful, and in addition there were five classes for floral decorated fireplaces. Fortunately, the weather, though dull during the early part of the day, was dry, and the attendance was almost a record one. It is estimated that 9,000 persons were present, and we heartily congratulate the society on their continued success, and the committee and secretaries on their good work.

PLANTS.

The leading feature was the group arranged for effect. Though the competition was not great, the groups staged were excellent. The premier award was given to Mr. Harrison, gardener to Colonel Archer Houbton, Hallingbury Place, and was noted for its artistic arrangement, lightness being the chief feature. The second prize was well deserved, and could easily have been first with the splendid materials at command, but the back of the group was too packed, large Palms being too much used, Mr. W. Clark, gardener to Mr. G. Gold, The Limes, Stanstead, being the exhibitor.

For stove and greenhouse plants in flower only two lots were staged, though these were very bright, especially the one which came from Mr. J. Barker, The Grange (gardener, Mr. G. Beech). He was first, and Mr. W. Holland second (gardener, Mr. W. Brown). For foliage plants Mr. Harrison was a good first, Mr. Beech being second with smaller plants, but well grown; Mr. C. Gold, jun., third.

For twelve plants grown in 8-inch pots, six in flower and six foliage, Mr. G. Beech was the only competitor, but with well-grown specimens. It is an interesting class, and should command more attention with better prizes. The same exhibitor was an easy first for Ferns, and he staged some beautifully grown plants.

Begonias, always a great feature at this show, were less numerous than usual. For a group Mrs. A. Taylor was first, and Mr. W. Smith second, the latter having very choice varieties, but not quite forward enough. Mrs. A. Taylor was also

first for Begonias in hanging baskets, some beautiful drooping varieties being grown for this purpose; Mr. F. Wilby second, and Mr. W. Smith third. Mrs. Taylor was also first for six doubles, Mr. Smith second, the same exhibitors having the best Gloxinias, Mr. Barker the best Ivy-leaved Geraniums, Messrs. Taylor and Barker the best double zonal, and Messrs. Smith and Barker the best single zonal.

Coleus were well staged, and, though not large, were finely coloured, the prizes being awarded to Messrs. Taylor, Barker, and W. Holland in the order named. Fuchsias were a poor class, but good plants were staged by Mr. Beech.

DECORATIVE TABLE PLANTS.

were very good here. The awards were given to Mr. J. Balfour (gardener, Mr. A. Jeffries), Mr. Beech, and Mr. Harrison. Another feature at this show is early Chrysanthemums, groups being arranged, and the variety most frequently staged is Mme. Desgrange, and these were exceptionally fine, Mr. Harrison having the best group, Mr. Barker being a good second, having a good frontage of Fern.

CUT FLOWERS.

In the hardy perennial section Messrs. Paul and Son, Cheshunt, had a grand lot, not a single weak bunch in the twenty-four that were staged; Mr. H. A. Hare being second with smaller bunches, but well staged.

There was no lack of competition in the Sweet Pea classes, the best collection for a special prize being awarded to Messrs. Barker, Edwards, and Smith in the order named. For twelve bunches of Eckford's varieties, Mr. H. A. Hare, Miss Newman, and Mr. Beech were the winners. In this class there were some splendid flowers. In the smaller classes Messrs. Routledge, Calvert, Johnson, and Mrs. Gold were successful.

For twelve bunches of stove and greenhouse plants, Mr. Beech had no opposition, but staged beautiful flowers. For hardy flowers, Miss Newman, Mr. Gold, and Mrs. W. Gee were the leading exhibitors, this being a fine class. For Chrysanthemum blooms, Messrs. Harrison, Johnson, and Watts led in the large class, and Messrs. Beech and Abbott in the smaller. Mr. Barker had the only stand of single Dahlias, but the doubles were very good, and Messrs. Barker and W. G. Gold had excellent flowers. Carnations were a special feature, but Roses were not a large class, Messrs. Barker and W. G. Gold and Mrs. A. Taylor having the best stands.

FRUIT.

This was one of the best points of the show, especially the forced fruit. Baskets of mixed fruit were staged, and though pleasing to the eye, it is not the best way to note defects. Some beautiful fruit was staged by Colonel A. Houbton and Mr. J. Barker, these gentlemen leading in most of the classes. Mr. A. Jeffries had the best Black Hamburg Grapes in both classes; second, Mr. Harrison. The last named also had grand Muscates; second, Messrs. Gosling; third, Mr. Barker. There were two very beautiful collections of fruit, Colonel A. Houbton and Mr. J. Barker being the exhibitors. Some very good Peaches were staged, Sir James Blyth, Bart., Colonel A. Houbton, and Mrs. A. Taylor being the leading exhibitors in the order named. The best Nectarines came from Sir J. Blyth, Colonel A. Houbton, and Mr. C. H. Davis. There was no lack of small fruits, the awards going chiefly to the above exhibitors.

VEGETABLES.

were a great feature, and the first prize was a beautiful collection, Mr. A. Jeffries leading, having good Alderman Peas, Exceolior Onions, and well-grown Syon House Potatoes; Mr. G. Beech was a good second, having very choice dishes; Mr. Harrison being third. In the smaller classes Mrs. Taylor, Messrs. F. Calvert and Abbott were successful.

TABLE DECORATION.

Miss A. F. Harwood, Colchester was first, having Tea Roses and coloured foliage and sprays of Francoa; Miss Camp, Sawbridgeworth, being second, using Jasmine flowering freely on the table; Miss Blyth being third with a pretty arrangement of Sweet Peas.

MISCELLANEOUS.

Messrs. Rivers, Sawbridgeworth, had a splendid group of fruit trees in pots, receiving a first-class certificate for their new Peach Peregrine; Messrs. Paul, Cheshunt, had splendid groups of herbaceous plants, also Messrs. Ware, Feltham; Mr. A. Perry, Winchmore Hill, had beautiful Water Lilies; Mr. S. Mortimer, Farnham, had some very fine stands of Dahlias, receiving a first-class certificate for Queen Alexandra, a beautiful flower.

ROYAL HORTICULTURAL SOCIETY.

SCIENTIFIC COMMITTEE, AUGUST 4.

PRESENT: Dr. M. T. Masters, F.R.S. (in the chair), Messrs. Hooper, Saunders, and Bowles, Dr. M. C. Cooke, Revs. W. Wilks and G. Henslow, hon. sec.

Late-flowering Plums, &c.—Mr. Hooper had noticed that various modifications occurred in flowers of fruit trees at the present time. Petaloid sepals and semi-doubling of petals with two carpels, forming twin Plums, were not uncommon. It was observed that in the common cultivated double Cherry there are always two foliaceous carpels present. Pear trees, &c., have also produced a second crop of flowers, which are borne on the ends of the young shoots instead of on spurs.

New Crocus.—Mr. Bowles exhibited dried specimens and drawings of *C. caspius* from Russian Talych, S.W. Caspian, with a white flower tinted with rose. He also showed the autumn-flowering *C. Scharojani* from the Caucasus. It is of an orange colour, and carries the leaves of the last season simultaneously.

Papaver panoninum.—Mr. Wilks showed a plant from Central Asia (see "Garten Flora," 1882, page 296, Taf. 1095) remarkable for a crescent-shaped black band near the base of each petal.

Cucumber diseased.—Mr. Davis of Bitton, Bristol, sent roots of Cucumbers which failed. Mr. Saunders reports a



THE BEAUTIFUL CAMPANULA LACTIFLORA, ONE OF THE FEATURES OF THE LATE MR. G. F. WILSON'S GARDEN AT WISLEY, AND NOW THE NEW GARDEN OF THE ROYAL HORTICULTURAL SOCIETY. (See page 123.)
(From a photograph by Miss Willmott.)

follows upon them: "I found that the extreme base of the stems were attacked by small worms belonging to the family Enchytracidae, which are nearly related to the earth-worms, and are well-known pests at the roots of plants; they were undoubtedly the cause of the unhealthiness of the plants. Lime water will kill them in a few minutes if it can be made to reach them; thoroughly drenching the soil with this fluid might be of use, though I do not know what effect it might have on the plants. They, however, are so injured that I should imagine the best thing to do would be to pull them up and burn them, and burn or bury deeply the soil in which they grew."

Cucumbers diseased.—Dr. Cooke reported upon some fruit badly attacked received from the neighbourhood of Bristol. It appears to be due to a fungus new to science, which he has named *Cladosporium scabiei*. A full description will be recorded in the Journal of the Royal Horticultural Society. He strongly recommends "that all diseased fruits be removed and destroyed at once, and those remaining should be sprayed to preserve them from attack. Condy's fluid, diluted, should be tried as less likely to injure the fruits than copper solutions." No effort should be spared at once to stamp out the pest."

DRILL HALL MEETING.

THE meeting of the society on Tuesday last was exceptionally good for the season, and much interest was created by the double Hollyhocks, which recalled the old days before the disease almost obliterated the race. There were very few Orchids, but these were good. The Potatoes from Messrs. Dobbie and Sons of Rothsay were of great interest, and the Apples from Messrs. Spooner and Sons, Hounslow, Middlesex, were also meritorious.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. Charles T. Drury, George Nicholson, R. Dean, J. Jennings, William Howe, George Reuthe, Charles Dixon, Charles Jeffries, J. W. Barr, Charles E. Pearson, R. C. Notcutt, William Cuthbertson, H. J. Jones, Charles E. Shea, W. P. Thomson, E. H. Jenkins, W. J. James, George Paul, Amos Perry, George Gordon, J. Fraser, and E. T. Cook.

The collection of Gladioli from Messrs. Kelway, Langport, was undoubtedly the finest thing in the show on this occasion, some 250 spikes of these noble garden flowers being set up. In a collection so good, so large, and replete in beauty, it is extremely difficult to particularise, for all are good and praiseworthy. We take, however, at random as we meet them, for a whole table from end to end of the Drill Hall was filled with these flowers. Such pronounced things as Kenwyn, soft cream and buff; Lord Iddeleigh, deep scarlet, white throat; Queen Alexandra, salmon-scarlet, with crimson and white throat; Mrs. Foster, lilac and white; Majus, scarlet and yellow throat; Eclipse, salmon-scarlet, with deeper flaking; Frank Miles, yellow buff, very charming; Mrs. F. Field, an approach to pure white, very fine spike; Sir Evelyn Wood, a shade between crimson and claret, very showy and intense in the self and rich colour; Baden-Powell, scarlet and white; Andromeda, a deep cream-yellow, shaded and purple-crimson stripes in throat; Duke of Devonshire, crimson-scarlet, white throat, is good; Mr. Chamberlain, deep salmon-scarlet and yellow throat; Nautch Girl, cerise-scarlet, white throat and crimson feather; The Sultan is very dark, a purplish plum shade, and a bloom not altogether at variance with the naming; Prince of Orange is good, and quite upholds the colour involved; Grandeur is a lovely yellow kind; Princess Royal, a delicate salmon pink, quite remarkable in size, in spike, and colour. These are a few, and they embrace many good things in this well-nigh unique collection. Silver-gilt medal.

A charming group of Gladioli came from Baron Schroeder, Egham. These were described as Canadian hybrids, but probably they are varieties of *G. Lemoline*, yet possessing a wide range of colour. We noted also forms of *Childal* and *Nanacenus*; indeed, the group was composed of these three types. Silver medal.

The Phloxes from Messrs. Paul and Son, Cheshunt, were very fine, as might naturally be expected in so moist a year. In the general selection shown we noticed *Fiancee*, white; *Avalanche*, white; *Coquillet*, scarlet; *Miss Pemberton*, rose-salmon, very fine; *Etna*, scarlet; *Grevin*, rose. Other things shown by this firm were *Colutea* in variety, *Capinus Betulus purpurea* (Purple Hornbeam, a beautiful tree), *Catalpa purpurea*, and several kinds of *Tamarix*, of these *T. festivals* and *T. odesana* were very lovely.

Hardy flowers and alpine were from Messrs. Peed and Sons, West Norwood. *Helenium*, *Montbretia*, *Tritoma*, *Echinops*, *Phloxes*, and such things were in large numbers. Boxes of dwarf alpine, *Sempervivum*, *Sedum*, *Campanula*, *Saxifraga*, &c., were also in this group.

A large and beautiful exhibit from Mr. H. B. May, Edmonton, contained chiefly *Bouvardias* in the best varieties. These were arranged in blocks, and we noted *Pink Beauty*, *Hogarth flore-pleno*, *Delicata*, *Maiden's Blush*, *Alba odorata* (very fine), *The Bride*, *King of Scarlets*, *President Garfield*, *President Cleveland*, very rich scarlet; *Vreelandi*, white; *Bridemaid*, a charming double pink among interesting things; *Solanum jasminoides*, *Swainsonia galegifolia* alba, and *Campanula Mayi* are worthy of mention. Silver-gilt medal.

Herr W. Pfitzer Stuttgart showed a fine strain of frilled *Begonia* in many colours; also *Begonia Bavaria*, a dwarf and very freely flowered scarlet form.

Some beautiful blue Water Lilies came from Mr. Leopold de Rothschild, Gunnersbury House (gardener, Mr. J. Hudson), and of these we noted *William Stone*, *Stellata* (Berlin var.), *Stellata pulcherrima*, very fine; and *N. gigantea* Hudsonii, a noble flower of soft blue and giant proportions; *Nymphaea George Hudson* is the night flowering *Nymphaea*, the carmine-rose shade, one of the most remarkable we have seen. A really splendid novelty.

Hardy flowers were shown by Mr. E. Potten, Cranbrook, Kent. *Phloxes*, *Trollius*, *Helenium*, *Platycodon grandiflorum*, and *Pentstemons* in variety being largely shown. The latter were very showy and good, and represented a capital strain.

Hollyhocks from Messrs. Webb and Brand, Saffron Walden, were stately and good, white, rose, carmine, yellow, flesh

buff, and maroon being among those shown. None of the sorts were named, we therefore assume the whole to be raised from their excellent strain of seed. A most interesting and old-world exhibit. Silver-gilt medal.

Hardy flowers from Mr. Amos Perry were bold, showy, and good, and consisted of *Helenium*, *Heuchera*, *Monarda didyma* alba, *Phloxes*, *Bocconia*, *Veronica* in variety, *Coreopsis tenuifolia*, *Buddiella variabilis*, *Geums*, and many other good things in season. The rare *Astilbe chinensis*, with pinkish flowers, was also shown. Silver medal.

Messrs. Ladhams, Limited, Southampton, staged a fine lot of *Gaillardias* as *Golden Gem*, *Sulphur Gem*, and *Shirley*, very rich in colour, together with *Lobelia Andrew Barlow*, and *Chrysanthemum maximum Monarch*, a fine large white, and the perpetual flowering *Pink Florence*, a lovely flower; besides other *Pinks*. *Pentstemon Newbury Gem* was also in good condition. Silver medal.

Messrs. Barr and Sons, Covent Garden, showed Gladioli, tufted *Pansies*, *Phloxes*, *Campanula carpatica China Cup*, a large and good flower, together with hardy *Heaths*, *Gerbers Jamesoni*, and a beautiful set of *Water Lilies*. *Gaillardias*, *Kniphofia glaucescens*, *Scabiosa caucasica* and *Asclepias tuberosa* were also shown.

Messrs. Veitch, Limited, Chelsea, contributed a beautiful batch of *Streptocarpus*, in many colours from white to rose, and many shades of blue. The same firm also showing in good form *Senecio olivorum*, *Astilbe Davidii*, and the white *Watsonia Meriana Ardenii*. Silver medal.

Messrs. J. Cheal and Sons, Crawley, showed *Cactus* and *Pompon Dahlias* in variety. Mrs. Perkins, Cheal's White, *Uranus*, gold and orange; *Aunt Chloe*, crimson maroon, being of the best in the former set. Single *Dahlias* were also finely shown, and in their cleanly expanded flowers attracted a good deal of attention. Silver medal.

Messrs. Veitch and Co., the Royal Nurseries, Exeter, had several exhibits of great interest. One was *Fagus Zlatia*, a Golden Beech, which will prove very valuable in the landscape we think. It is a good colour, and also the delightful *Coriaria terminalis*, with its clusters of golden fruit, like golden Currants, and the yellow *Chrysopsis villosa* var. *Rutteri*. We shall refer to these again.

A small group of Gladioli came from W. C. Bull, Esq., Ramsgate, one *Sulphurea* being quite distinct. Some eight kinds were shown, and nearly all were of white and sulphur.

FLORAL COMMITTEE AWARDS.

The following received an award of merit:—

Begonia Bavaria.—An exceedingly dwarf kind with cerise-scarlet flowers in large numbers on stems some 6 inches high. It is an ideal bedding plant, and we are pleased to learn that the exhibited plants were lifted from open beds merely for exhibition. The plants were shown by Herr W. Pfitzer Stuttgart, Germany.

Gladiolus Lady Muriel Digby.—A very large flower and a great acquisition. The colour is deep sulphur-yellow, with chestnut-crimson stains on the lower petals. A very handsome kind. Shown by Messrs. Kelway, Langport.

Gladiolus Nymph.—A pure white, widely-winged flower, that at the base internally has a decided and clear zone of crimson-red. A distinct feature is that the flowers are arranged around the spike, not in the usual second form generally seen. From W. C. Bull, Esq., Ramsgate.

Tamarix Odesana.—A very beautiful gathering of this lovely and graceful shrub. The colour of the flowers is delicate lilac, but the beauty of the plant is in the grace of foliage coupled with the delicacy of the flower tint and the slight drooping character withal. Shown by Messrs. Paul and Son, Old Nurseries, Cheshunt.

FRUIT COMMITTEE.

Present: George Bunyard, Esq. (chairman), Messrs. H. Balderson, James Cheal, H. Easing, W. Bates, A. Dean, J. Baahaw, G. Kelf, H. Markham, Owen Thomas, J. E. Veitch, J. Jacques, J. Willard, G. Wythes, and F. L. Lane.

Messrs. Dobbie and Sons, Rothsay, sent a superb exhibit of Potatoes, chiefly representing early and second early varieties. Of those exhibited we noted *British Queen*, *The Factor*, a splendid keeper; *Royal Kidney*, *White Elephant*, *Harbinger*, *Alpha*, *Eightfold*, a fine-coloured round; *Sir J. Llewellyn*, *Ninetyfold*, *Duke of York*, *Sharpe's Victor*, *Beauty of Hebron*, *Windsor Castle*, *Lord Beaconsfield*, &c. Taken in toto, the exhibit was very fine, and, in uniformity as well as in quality, represented an ideal state of perfection. The tubers were set in ample-sized baskets that gave every opportunity for comparison. Silver medal.

Strawberry Royal Sovereign in splendid form, from Mr. Leopold de Rothschild, received a cultural commendation.

Messrs. Spooner and Sons, Hounslow, showed a very interesting collection of Apples, one a seedling reminding one of *Alfriston*. *Beauty of Bath* was splendid, even in shape, and excellent in colour.

Mr. Wythes, Syon House Gardens, Brentford, showed an excellent Melon, which promises exceedingly well, but was not quite ripe enough for an award, and also a new break in *Custard Marrows*. Both of these we shall refer to again.

Tomato Coronation, a large red kind, was from Mr. H. Parr, New Barnet, the same gentleman exhibiting *Vegetable Marrows*.

A fine Runner Bean, *Hackwood Success*, came from Mr. J. Bowerman, Hackwood Park, Basinstoke. Many of the Beans were 10 inches long. It is evidently a very fine novelty.

FRUIT COMMITTEE AWARDS.

NEW FRUIT.—PEACH PERFECTION.

This came from Messrs. Rivers and Sons of Sawbridge-worth. It is a large and delicious fruit, a warm crimson in colour, and in every way a thoroughly meritorious addition. The tree forces well, bears abundantly, and is very hardy. We have referred to it elsewhere, and hope to figure it next week. Award of merit.

Bean (Runner) Hackwood Success.—A very handsome Runner Bean, and a great cropper withal, bunches being shown containing as many as eight Beans. Many of the selected Beans must have been 10 inches long. From Mr. J. Bowerman, Hackwood Park, Basinstoke.

ORCHID COMMITTEE.

Present: Henry Little, Esq. (chairman), and Messrs. J. O'Brien, H. M. Pollett, W. Cobb, James Douglas, Francis Welleley, G. F. Moore, H. Ballantine, H. J. Pitt, E. Hill, W. Buxall, F. J. Thorne, E. A. Tracy, W. H. Young, and T. W. Bond.

In a choice collection from Messrs. Stanley, Ashton and Co., Southgate, we noted *Laelia amandae* (natural hybrid), *Cattleya Loddigei*, *Laelio-Cattleya massangeana*, *Oncidium incurvum* var. *album*, very pretty and chaste, *O. varicosum* var. *Rogerali*, and a choice *Laelia Iona*, Southgate var. that received the award of merit. Silver Flora medal.

The lovely group from Messrs. Sander and Sons, St. Albans, contained *Odontoglossum Adriane*, *Miltonia vexillaria*, *Cypripedium Cassandra* (*sanderianum* × *gowerianum*), *Dendrobium formosum* giganteum, *Laelio-Cattleya blancheyana*, *Cypripedium Uitor* from C. Lawrenceanum × C. *sanderianum*, *Phaius maculata*, golden, with brown margin to lip; and the pretty *Phalenopsis Emeralds*, the miniature blossoms very distinct. Silver Flora medal.

Captain Holford, Westonbirt (gardener, Mr. Chapman), had a beautiful group of Orchids, which contained one plant of special merit, namely, *Cattleya callistoglossa excelsa*. It had five spikes bearing several blooms each, and the colouring is delightful; the flowers are very large, light rose-purple sepals and petals, and deep purple lip with yellow throat. A cultural commendation was given it. Among other things in this group were *Cattleya eximia*, splendidly grown; *Vanda coarctata*, beautiful in colour, a noble spike; *Cattleya Germania superba* (scholfieldiana × *haryanum*), lovely colour, rose sepals and petals, and purple lip; *Laelio-Cattleya blancheyana*, and *Cattleya intricata*. Silver medal.

Messrs. Charlesworth, Bradford, showed another of their interesting groups to which we look forward with so much pleasure at these fortnightly meetings. We noticed in the collection *Laelio-Cattleya callistoglossa*, *Catasetum callosum*, *Laelio-Cattleya Carlinei*, *Oncidium dactyle*, *Cypripedium youngianum* superbum, *Sphro-Laelia heatonensis*, *Braasla lawrenceana longissima* (very fine), *Odontoglossum haryanum*, *Cattleya Niobe*, *Laelio-Cattleya blancheyana*, *Laelia Iona superba*, lovely colour, very deep and attractive; *Laelio-Cattleya Adolphus superba*, orange with purplish spots, *Stanhopea oculata*, and *Dracophyllum difforme*. Silver medal.

Mr. Ingram, Elstead House, Godalming, showed *L.C. spicata fulgens* (L. *pumila* × *gigas*), a flower of beautiful colour, also *Laelio-Cattleya Meteor* (*Laelia pumila* × *Cattleya bowringiana*), conspicuous for its dark lip.

Mr. Jeremiah Coleman, Gatton, showed *Laelia elegans* var., a bronzy rose colour and deep crimson lip, the side lobes of which are white, touched with pink.

Mr. C. J. Lucas, Warnham Court, Horham (gardener, Mr. G. Duncan), had *Laelio-Cattleya blancheyana*, a flower of very warm colouring and deep lip, Mr. Lucas also showed *Cypripedium Lord Derby*.

Cypripedium Phoebe (C. *laevigatum* × *bellatulum*) came from Mr. J. Brooks, gardener to Mr. W. M. Appleton, Tyn-y-Cad, Weston-super-Mare.

ORCHID COMMITTEE AWARDS.

Lord Auckland showed a superb spike of *Oncidium luridum guttatum*, it measured nearly 8 feet in length, and a cultural commendation was most deservedly given.

Laelia Iona Southgate var.—A lovely flower; the sepals are rich rose, and the lip undulated and deep maroon-crimson. From Messrs Stanley, Ashton and Co., Southgate, N. Award of merit.

LECTURE ON THE "HOLLYHOCK."

In his opening remarks, Mr. Webb referred to the stateliness and grandeur of the Hollyhock, a remark that all who know and have grown these plants will heartily agree with. The great range of colour was touched upon and the great age of the group as garden plants. In passing it was mentioned that Gerard, some 300 years ago, noticed two double sorts, viz. double red and double purple, and these were apparently the first of all the race of doubles known to cultivators of the flower. Following, Mr. Webb observed that Mr. Charles Baring early in the last century took up the cultivation of the flower, and later on handed on the work to the late Mr. Chater, who raised and distributed in 1847 one of his notable sets of double varieties. From this time the flower was cultivated with success, and indeed so cultivated until the appearance in 1873 of the Hollyhock disease, which, in its virulence, carried off the choicest and best of these flowers to be lost for all time. In referring to the healthiness of the plants, and how the cultivation affected this, we were pleased to find so much emphasis laid upon the question of a hardy upbringing, and likewise the fact that wintering under glass was now entirely abandoned. All the best named sorts now are raised from seed, the latter, if sown in the open in May or June, quickly germinates and forms a small tap root. This little root in the replanting is severed in two for the express purpose of hastening the production of those small fibrous roots so valuable in the ultimate planting to permanent positions. Stress was laid upon the requirements of the Hollyhock as regards its cultivation in the open, a deep trenching of the soil to 2 feet deep, and keeping the better soil below was advocated, with the addition of heavy manuring if the finest spikes are desired. August or September was urged for the planting, for if deferred to a much later date the plants failed to pass the winter in the same successful manner. Plenty of room and therefore of air about them was regarded also as essential, and 3½ feet apart was given as a good distance.

The necessity of watering prior to and during bud and flower formation, was also touched upon, together with a splash of short litter to stay evaporation. To secure the spikes against wind is but a natural item in such stately plants. Timely thinning of the buds, and this in a distinctly uniform way, was suggested to render the flowers of the best. All lateral shoots must be removed, and equally all the growths from the base of the plants, while in dry weather it is well to continue the watering even when the plant was in bloom. An ideal spike, as regarded by Chater, was made up

of flowers with thick or substantial petals, smooth edge, and full centre with compactness. Guard petals should be stiff and firm. The flowers should be regularly arranged, thinly disposed, yet without any open space. When flowering is past the plants may be cut down, and later may be lifted, and if desired to retain them another year for flowering, heel them in in light soil under a south wall, and give a light protection with Bracken. Then when replanted in March they should be thinned of many shoots. The other modes of increase, as by cuttings, by grafts, as well as by budding on pieces of root, after the manner of Roses on Briar roots, having been referred to in detail, attention was directed to the present day disease, for which no specific was equal to it. It was, however, observed that sheep-dip containing Tobacco juice and carbolic acid was useful when syringed on the under surface of the leaves in warding off an attack, while the same being most useful in keeping down any attack of red spider. In spite of all these things, however, it was finally urged that if hardly grown from the beginning the cultivator had nothing to fear from the Puccinia or Hollyhock fungus to-day.

SHREWSBURY FLORAL FETE.

ONCE again we have to record a most successful summer show at Shrewsbury. The great floral fête held on Wednesday and Thursday last was as good as has been held, and this is saying a great deal. The first day proved an ideal one, warm, and the sun shone brightly, notwithstanding the unfavourable predictions that had made everyone pessimistic. As a display of horticultural produce the Shrewsbury show is unequalled in the kingdom, and although we were all prepared, on account of the bad season, to be content with a display below the average, there was no need, for generally speaking the exhibits were of the usual excellence. With the exception of the white Grapes, which were poorly finished, there was little to complain of as regards the fruit; in fact, some of the Peaches and Nectarines were remarkably well coloured. The winner in the great Grape class was Mr. Goodacre, with a splendid exhibit, but he was only two points ahead of the Scotch growers, Messrs. D. and W. Buchanan. In a way the second prize exhibit was most meritorious, for out of the twelve bunches shown by Messrs. Buchanan no less than seven gained the full possible points. The reason their total was less than that of Mr. Goodacre was that for most of their varieties the maximum points were less than for the Grapes shown by Mr. Goodacre, that is to say, they are less difficult to grow to perfection.

The groups of plants were a splendid feature, the chief prize this year being won by Mr. Vause, Leamington. Sweet Peas made a grand show. One tent was practically filled by exhibits in two competitions, each for twelve distinct varieties. They made a fine display. Hardy flowers, Dahlias, Gladioli, pot plants, floral decorations, vegetables, and miscellaneous groups were other conspicuous features. The display of *Amaryllis* by Mr. Chapman, gardener to Captain Holford, was unique at this season and much admired. Shrewsbury floral fête is as notable for the gathering of gardeners as for a display of gardening produce. Among those present were Sir Trevor Lawrence, Bart., Captain Holford, the Rev. C. Wolley Dod, Messrs. W. Robinson, Harry Turner, Owen Thomas, N. F. Barnes, Mackellar, W. Crump, P. Blair, S. T. Wright, James Hudson, George Norman, T. A. H. Rivers, James Douglas, David Thomson, Wallis, and others. As is usual, Messrs. H. W. Adnitt and W. W. Naunton, the honorary secretaries, were tireless and most successful in their efforts to please both exhibitors and judges.

PLANTS.

Throughout the show this section was fully up to the usual Shrewsbury standard, bold, massive, and showing the highest cultural skill; Crotons in the larger classes were not so well coloured, but this was more than compensated for by the flowering plants. Mr. Cypher was first with *Statice intermedia* (8 feet through), *Bougainvillea Cypharii* and *sanderiana*, fine; *Allamandas grandiflora* and *nobilis*, *Ixoras Williamsii* and *Duffii*, splendid, *Statice profusa*, *Crotons Warrenii* and *Sunset*, *Stephanotis*, *Erica marnockiana*, *Phoenix rupicola*, and *Kentia fosteriana*. Mr. Vause was a fairly good second, the plants much smaller. *Croton Queen Victoria*, capital; *Stephanotis floribunda*, *Ixora Fraserii* and *Bougainvillea sanderiana*, and an *Erica* in fine form; Mr. W. Finch was a moderate third.

For six stove and greenhouse plants in bloom or foliage, S. Timmis, Esq. (gardener, Mr. B. Cromwell, Cleveley, Allerton, Liverpool), staged superb specimens of *Ixora Duffii* (7 feet through), and carrying a score of huge brilliant heads, *Lapageria rosea*, grand; *Statice profusa*, *Ixora Williamsii*, and *Kentia fosteriana*; second, Mr. J. Cypher, with splendid *Statice intermedia* and *profusa*, and *Stephanotis floribunda*; third, Mr. W. Vause.

For a group of ornamental foliage plants, Palms, Ferns, &c. (300 square feet), Mr. W. Vause gained the coveted position. There was a bold central mound topped by a fine Phoenix, the pyramid being admirably formed of *Acers*, *Liliums*, *Crotons*, *Dracenas*, and *Caladiums*, with others somewhat unfinished and a feeble background. Mr. J. Cypher, who was placed second, had a remarkably fine background in arched style, the foliage and flower effects being unusually effective. The very handsome mounds, consisting of the choicest Orchids, &c., were brought well to the front. The group was certainly weighty, but the general consensus of opinion was that the positions ought to have been reversed.

For a group of miscellaneous foliage plants Mr. Cypher made an excellent display, the blending of light and shade being unusually effective, without detracting from its graceful appearance; second, Mr. J. Thompson, Derby, who very finely demonstrated the brilliant effects which can be produced by single specimens in particular. The third was taken by the Earl of Carnarvon, Bretby Park (gardener, Mr. J. Read), with a handsome treatment, lacking in its want of greenery.

For single specimens (stove and greenhouse) Mr. W. Vause was first with a choice *Erica*; second, Mr. Finch, with a superb *Ixora*.

The great plant class in the show was undoubtedly that for thirty stove and greenhouse plants in pots not exceeding 10 inches, not less than ten in bloom. Four competed. The first, from Lord Harlech, Brogyntyn, Oswestry (gardener, Mr. Lambert) was probably one of the best exhibits ever seen at this or any other show. In foliage *Maranta sanderiana*, *Crotons Evansianus* and *Andreanus*, *Ixoras Duffii*, *amabilis*, *Prince of Orange*, and *Pilgrimii*, and *Allamanda Williamsii* were magnificent. Mr. Sutton Timmis was a brilliant second, *Ixoras Duffii* and *Coccinea superba* and finely-coloured *Crotons* being most convincing; Mr. J. Cypher a fine third.

A group of Begonias in pots for effect brought three competitors, Mr. Fred Davis, Woolashill, near Pershore, clearly leading with flowers of wonderful substance and form; second, Messrs. Blackmore and Langdon; third, Messrs. B. R. Davis, Yeovil.

Collection of thirty miscellaneous plants in 5-inch pots: Lord Harlech first with specimens similar to those in 10-inch pots; second, Mr. Timmis.

The 100 feet groups were lacking in colour, but as regards arrangement they contained many pleasing features: First, Mr. T. Kynnersley, Leighton Hall; second, Mrs. Swann, Halston Hall; third, Mr. H. Hayhurst.

FRUIT.

Dessert table decorated with plants and flowers: First, Mr. Goodacre, Elvaston Castle Gardens, with 118½ points. Full points were obtained for no dish; the best were Apples, 6½ out of 7; Melons, 7 out of 8; Nectarines, 7½ out of 8; Pears, 6½ out of 7. General arrangement for effect gained 8 out of 10 points, and beauty of flower and foliage 6½ out of 8. Madresfield Court and Black Hamburg Grapes, Marguerite Marillat and Dr. Jules Guyot Pears, Princess of Wales and Bellegarde Peaches, Washington Apple and Pine-apple Nectarine were fine dishes. *Francoa* and *Chironia* were the flowers used for decoration with *Gypsophila* and *Asparagus*. Mr. G. Mullins, Eastnor Castle Gardens, Ledbury, was second with 107 points. Gros Maroc Grape, Melon Royalty, Cherry Bigarreau Napoleon, Nectarines Stanwick Elruge and Lord Napier, and Peach Bellegarde were the best. *Tritoria*, *Francoa*, *Gypsophila*, and *Selaginella* were used for decoration. Mr. R. Dawes, Temple Newsam, was third with 97 points, showing some good dishes, Peach Dymond, Nectarine

Stanwick Elruge, and Grape Madresfield Court particularly. There were no more entries.

Champion Grape Class.—Twelve bunches of Grapes, in four or more varieties: First, Mr. Goodacre, Elvaeton Castle Gardens, with 115½ points. The bunches were of excellent quality throughout, one bunch gained full points, viz., Muscat Hamburg, another bunch of the same variety only lost half a point, and Madresfield Court also lost half a point only. They were really a fine lot. This exhibit won third prize for decoration. Messrs. D. and W. Buchanan, Kippen-by-Stirling, were only two points behind with 113½ points. They gained full points for seven bunches, viz., Muscat of Alexandria (three times), Cooper's Black (twice), Alicante and Alnwick Seedling, half a point only was lost on bunches of Alnwick Seedling (twice), Cooper's Black, Muscat of Alexandria, and Alicante, a splendidly grown lot of fruit; Mr. W. Shingler, Melton Constable, was third with 107½ points. Full points were obtained for Madresfield Court, Alnwick Seedling, and Gros Maroc; Mr. W. A. Coates, gardener to Colonel Platt, C.B. was fourth with 105½ points. The first prize for decoration was awarded to this exhibit; Mr. R. Dawes, Temple Newsum, was fifth with 80 points, and second for decoration.

Sixteen dishes of fruit: First, Mr. J. H. Goodacre, Elvaeton Castle Gardens, with a really good display. Grapes Madresfield Court and Black Hamburg were best, while Pear Souv. du Congrès, Brown Turkey Figs, Lord Napier Nectarine, and the Melons were very good. Mr. J. Dawes, Ledbury Park Gardens, was second, the Sea Eagle Peaches, Lord Napier Nectarines, and Cooper's Black Grape being the best dishes. Mr. Jordan, Impney Hall Gardens, was third. Hero of Lockinge and Frogmore Scarlet Melons were very good; also Violette Hâtive Peach.

Mr. Jordan, the third prize-winner, won first prize for decoration. He used Cattleyas, Lælias, Cypripediums, and Asparagus, as well as some pretty Crotons and other small plants. Mr. Goodacre was second for decoration, and Mr. J. Dawes, Ledbury Park Gardens, third.

Twelve dishes of fruit: First, Mr. R. Dawes, Temple Newsum, with very good Peaches Dymond and Bellegarde, Stanwick Elruge Nectarines, Gros Maroc and Madresfield Court Grapes, and Ring-leader Melon; second prize for decoration was awarded, Montbretias and Gypsophila being used. Mr. J. Jones, York House Gardens, Malvern, was second for fruit and first for decoration—Pink Carnations, Francoas, and Gypsophila. Nectarine Violette Hâtive, Peaches Violette Hâtive and Stirling Castle, and Madresfield Court Grape were best.

Nine dishes of fruit: First, Mr. C. Wilkins, gardener to C. F. K. Mainwaring, Esq., Oteley, Ellesmere. This exhibit won the second prize for decoration, which consisted of Caladium argyrites. The Peaches and Nectarines were finely coloured. Second, Mr. J. Langley, Tedmore Hall, West Felton, with splendid Prince Englebert Plum; third, Mr. S. Bremmell, Overley, Wellington. The first prize for decoration was given to this exhibit. White Sweet Peas, Tritonias, and Crimson Lychnis were effectively used. Mr. C. Roberts, Halston Hall, was fourth for fruit, and third for decoration.

GRAPES.

Four bunches of Grapes: First, Mr. T. Lambert, gardener to Lord Harlech, with fine Madresfield Court and Muscat of Alexandria; Mr. C. Richardson, gardener to J. Bayley, Esq., Llanfairfechan, was second with large bunches, but small berries; third, Mr. C. Wilkins, Oteley, Ellesmere.

Two bunches Black Hamburg: First, Mr. Goodacre, who showed well; second, Mr. Langley, Tedmore Hall Gardens; third, Mr. J. C. Tallack, Shipley Hall Gardens.

Mr. Goodacre was first for one bunch Black Hamburg; Mr. J. Langley, second; and Messrs. D. and W. Buchanan, Kippen, Stirling, third. All were finely finished. There were several more entries.

Two bunches Madresfield Court: First, Mr. W. Shingler, Melton Constable, with perfectly finished examples; second, Mr. Goodacre; third, Mr. J. Langley. Four more entries.

Two bunches Alicante: First, Mr. W. Shingler with huge, well-coloured fruit; second, Mr. A. H. Hall, Prestbury.

Two bunches Gros Colman or Gros Maroc: First, Mr. W. Shingler with very large-berried bunches; second, Mr. J. Goodacre, very fine also; third, Mr. G. Davies, gardener to Mrs. F. Alderson; All showed Gros Colman.

Two bunches White Muscats: First, Mr. F. W. Everett, gardener to Mrs. Gough, Tal-y-Cafn, with very large, small-berried, fairly well coloured fruit; second, Mr. C. Richardson, Llanfairfechan; third, Mr. Goodacre with well coloured, though loose bunches. There were five more entries.

Single bunch, White Muscats: First, Messrs. D. and W. Buchanan, Stirling, with good Muscat of Alexandria, fairly well coloured; second, Mr. A. H. Hall; third, Mr. Goodacre.

Two bunches (White), any other variety: First, Mr. Goodacre with Buckland Sweetwater; second, Mr. W. A. Coates, gardener to Colonel Platt, C.B., with very large bunches Foster's Seedling, poorly coloured; third, Mr. F. W. Kerr, Chorley, Lancs., with the same variety.

One bunch Diamond Jubilee: First, Mr. Jordan with a finely finished bunch; second, Mr. Goodacre; third, Mr. A. H. Hall. Messrs. Buchanan gave the prizes in this class.

OTHER FRUITS.

Six Peaches: First, Mr. W. Powell, gardener to C. T. Weatherby, Esq., Adlestone, Surrey, with Bellegarde finely coloured; second, Mr. R. Dawes, Temple Newsum Gardens; third, Mr. F. Jordan, Impney Gardens.

Six Nectarines: First, Mr. W. Pilgrim, Bodorgan, Anglesey, with River's Orange; second, Mr. G. Lilley, Gaddesby Hall Gardens, Leicester; third, Mr. F. Jordan, Impney Gardens.

Six Apricots: First, Mr. R. Grindrod, Whitfield, Hereford, with Early Red; second, Mr. W. L. Bastin, Buscot Park Gardens; third, Mr. W. Humphries, Holme Lacy.

Green flesh Melon: First, Mr. Goodacre, with a seedling; second, Mr. S. Bremmell, Overley; third, Mr. A. Ruddock, Bangor.

Scarlet flesh Melon: First, Mr. R. Lawley, Adoote, with Sutton's Triumph; second, Mr. F. Jordan; third, Mr. W. A. Webster.

White flesh Melon: First, Mr. G. Lilley, with Hero of Lockinge; second, Mr. F. Jordan; third, Mr. W. A. Webster.

Mr. Goodacre was first for twelve Gage Plums, twelve yellow Plums, twelve purple Plums, and for twelve red Plums.

Mr. A. Ruddock, Tan-y-Bryn, Bangor, won for a dish of Cherries.

CUT FLOWERS.

Messrs. Jenkinson and Son, Newcastle, Staffs, were first for a bridal bouquet; Messrs. Perkins and Son, Coventry, second. Messrs. Jenkinson were first for a bridesmaid's bouquet; Messrs. Perkins second.

Messrs. Perkins were first for a ball bouquet; Messrs. Jenkinson second.

Ball and bridal bouquets, Orchids excluded: First, Messrs. Perkins and Son, Coventry, using Carnations; second, Mr. W. J. Garner, Altrincham.

Messrs. Perkins were first for a feather-weight bouquet.

Stand of cut flowers: First, Mr. J. Nixon, gardener to O. Robinson, Esq.

Design in cut flowers: First, Messrs. Pope and Son, King's Norton, with an anchor in white. Very effective.

Messrs. Perkins were first for six button-hole bouquets and six sprays; Mr. William Tresseder, Cardiff, second.

Hand-basket of cut flowers: First, Messrs. Perkins and Son, Coventry, with Carnations; second, Mr. W. Tresseder, Cardiff, with pink Carnations.

Basket of cut flowers: First, Messrs. Jones and Son, Shrewsbury, with Orchids, Anthuriums, &c.; second, Messrs. Pope and Son, King's Norton.

Bouquet of Cactus Dahlias: First, Messrs. Pope and Son; second, Mr. W. Tresseder, Cardiff.

Floral harp: First, Mr. W. Tresseder, Cardiff,

with an excellent exhibit; second, Messrs. Perkins and Son.

Floral wreath: First, O. Robinson, Esq., Alderley Edge; second, Mr. W. Tresseder.

Floral cross: First, Messrs. Perkins and Son; second, Messrs. Jones and Sons, Shrewsbury.

SWEET PEAS.

Eighteen distinct varieties (prizes by Mr. H. Eckford): First, Mr. J. Chisholm (gardener to Hugh Aldersey, Esq.), Aldersey Hall, with a bright and well-arranged lot; second, Mr. T. Jones, Ruabon, with some fine flowers also; third, Mr. Hall, Knotton Hall Gardens, Ellesmere. There were several more entries and a good display resulted.

Twelve distinct varieties (prizes by Mr. Robert Sydenham): First, Mr. W. Shropshire, Market Drayton, with a splendid lot, good blooms, and distinct colours; the Rev. J. Duncombe was a good second; Mr. J. Chisholm, Aldersey Hall, was third; and Mr. A. G. Holford, Offley Hay, Salop, fourth. The entries in this class were very numerous, and the exhibits almost filled the staging around the tent.

Six vases (prizes by Messrs. Jones and Sons, Shrewsbury): First, Mr. T. Jones, Ruabon; second, Mr. Edward Jones, gardener to the Misses Howland, Berriew; third, Mr. C. C. Peplow, Bicton.

Twelve varieties: First, Mr. J. Chisholm, Aldersey Hall Gardens, with some lovely blooms; second, Mr. W. Shropshire, Cheswardine Marsh; third, E. Amies, Esq. (gardener, Mr. S. Marshall), Fairholme, Surrey. The competition in this class was very keen, and a splendid display resulted.

DAHLIAS.

Mr. William Tresseder, Cardiff, was first for a general collection with a fine display; second, Messrs. Keynes, Williams and Co., Salisbury; third, Messrs. Jones and Sons, Shrewsbury.

The Cactus Dahlias made a grand show, Mr. Rowe, Barbourne Nurseries, Worcester, leading easily for a collection. Mrs. Mawley, Harry Lang, and Maid of Honour were conspicuous; Mr. S. Mortimer, second, had grand flowers without any foliage, and Messrs. Keynes, Williams and Co. third.

Twenty-four blooms, show varieties: First, Messrs. Keynes, Williams and Co., Salisbury, with some fine flowers; Mr. S. Mortimer, Farnham, Surrey, was second with hardly less good blooms; Mr. J. R. Tranker, Henley-on-Thames, third.

Twelve show Dahlias (nurserymen excluded): First, Mr. T. Jones, Penylan, Ruabon, with large well formed flowers; second, Mr. J. Davis, gardener to W. E. King, Esq., Bodenham; third, Mr. W. Hutchinson, Kirbymoorside.

Twelve varieties Cactus Dahlias: First, The Vineries, Limited, Acocok's Green, with a splendid lot; second, Messrs. Keynes, Williams and Co., Salisbury.

Twelve varieties Cactus Dahlias (nurserymen excluded): First, Mr. J. Davis, Bodenham; second, Mr. G. Banfield, gardener to W. H. Banks, Esq., Kingston.

Six varieties Cactus Dahlias (nurserymen excluded): First, Mr. J. Davis; second, Mr. J. Taylor, Hardwicke Grange Gardens; third, Mr. J. Birch, Shotton Hall Gardens, Shrewsbury.

ROSES.


These, for the season, were remarkably fine, possibly the best display ever seen at this exhibition.

Twenty-four blooms: Messrs. R. Harkness and Co., Hitchin, had the premier stand with large fresh blooms; the best varieties were Paul Neron, Bessie Brown, Etienne Levet, Mrs. John Laing, Mme. E. Verdier, White M. Cochet, Charles Lefebvre, Ed. André, Maman Cochet, Gustave Piganeau, and Her Majesty; second, Messrs. D. and W. Croll, Dundee, Comte Raimbaud, Louis van Houtte, and Liberty being excellent; third, Messrs. Perkins and Son, Coventry.

Twelve blooms (county of Salop): First, Mr. S. J. Simon, Market Drayton, with fair blooms but badly arranged; the best flowers were Mme. Lambert, Liberty, White Maman Cochet; second, Rev. J. T. B. Wollaston; third, Mr. J. H. Stacey.

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GREAT SALE



NOW ON

Twenty-four blooms, not less than twelve varieties (amateurs): First, R. F. Hobbs, Esq., Worcester, with a fresh lot of fair blooms, the light ones being most strongly represented; the best were Mildred Grant, The Bride, A. K. Williams, Her Majesty; second, Mr. J. W. Hinton, Stafford, with smaller blooms; third, Mr. H. Hawterworth.

Eighteen blooms, not less than twelve varieties (amateurs): First, R. F. Hobbs, Esq., Worcester, with a very fine lot of good substance; second, W. Hutchinson, Esq.; third, H. Hawterworth, Esq., with a stand of great merit; no less than eight exhibits were staged.

OTHER HARDY FLOWERS.

Collection of Carnations: The first prize lot was a splendid arrangement from Mr. A. F. Dutton, Bexley Heath; second, Mr. M. Campbell, Blantyre; a splendid third, Mr. Watte, St. Asaph, many thought he should have been second.

For a collection of hardy perennials to cover a frontage of 15 square feet, Messrs. Harkness and Sons, Bedale, Yorks, staged a gorgeous group. Heavy masses of rich colour, for instance, Gladioli Lafayette, Delilah, and Marie Lemoine, Montbretia rosea, exquisite; Lilliums in profusion, and Trollius Fortunei. Mr. Prichard, Christchurch, was a good second, but his display lacked colour and weight. Messrs. Gibson, Leeming Bar, Bedale, were a good third.

Gladioli were not very strongly shown. Messrs. R. Hartland and Son, Cork, won in grand form for thirty-six spikes, the Childs type figuring prominently. Messrs. R. Harkness and Prichard were second and third.

For twelve spikes of Gladioli, Mr. W. Hutchinson, Kirbymoorside, was first.

The twenty-four bunches of hardy flowers (shrubs and annuals excluded) made a grand class, Miss Humberston, Chester (gardener, Mr. R. Wakefield), leading in grand style from Messrs. Gibson, Leeming Bar. Phlox Frau S. Buchner, Lobelia Fire Fly, Echinops ruthenicus, and Scabiosa caucasica were especially fine.

VEGETABLES.

These if anything were finer than ever, showing what can be done by capable growers in a most adverse season. In the special class for nine kinds (the prizes being given by Messrs. James Carter and Co.) Mr. E. Beckett, gardener to Lord Aldenham, Elstree, staged the premier lot with grand Leeks Holborn Model, Cauliflower Carter's Early Autumn Giant, Celery Solid Ivory, Potato Windsor Castle, Onion Selected Ailsa Craig, &c.; second, Mr. D. Gibson, gardener to Mr. Johnstone; third, Mr. B. Ashton, gardener to the Right Hon. Earl of Lathom.

Collection of vegetables, nine distinct kinds (prizes presented by Messrs. Sutton and Sons, Reading): First, Mr. J. Gibson, gardener to R. W. Hudson, Esq., Marlow, with splendid Leek Sutton's Prizetaker, Cauliflower Autumn Mammoth, Tomato Perfection, Runner Bean Beet of All, Onion Ailsa Craig (very fine), Potato Windsor Castle, Pea The Gladstone, &c.; second, Mr. E. Beckett, with extra fine Peas, Cauliflowers, and Runner Beans; third, Mr. B. Ashton, with a good lot.

Collection of vegetables (prizes presented by Messrs. Hewitt and Co.): First, Mr. J. Read; second, Mr. E. Walker.

Collection of vegetables, eight distinct kinds (prizes offered by Messrs. Webb and Sons): First, Mr. B. Ashton, Ormskirk Gardens, with a display of excellent quality; second, Mr. W. L. Bastin, Buscot Park Gardens, Faringdon; third, Mr. H. Folkes, gardener to the Right Hon. T. J. Halsey, M.P., Hempstead, Herts. Mr. J. Weston won the first prize offered by Messrs. Webb for a dish of Tomatoes with Webb's Sensation: Mr. W. L. Bastin was second, and Mr. B. Ashton third.

Mr. R. C. Townsend, Chalfont Park Gardens, Slough, was first for Mr. E. Murrell's prize for eight distinct kinds of vegetables; Mr. J. Birch, Shotton Hall Gardens, was second; Mr. E. Walker, gardener to Sir W. Honyman, Bart., third.

Six distinct kinds (prizes by Mr. E. Murrell): First, Mr. J. Clowes, Hadnall Hall Gardens;

second, Mr. J. Abbott, gardener to Mrs. Guise, Hadnall; third, Mr. D. Breeze, 55, Percy Street.

Nine distinct kinds (prizes by Messrs. Richard Smith and Co., Worcester): First, Mr. R. A. Horspool, Ruabon; second, Mr. E. Beckett, Aldenham House Gardens; third, Mr. S. Bremmell.

Special prizes offered by Mr. R. Sydenham: His fifteen guinea silver challenge cup was won for the third time by Mr. W. Leith, gardener to Colonel O. R. Middleton, Ross, and thus becomes his property. Two dishes of Peas: First, Mr. R. A. Horspool, Ruabon, with Gladstone and Duke of Albany; second, Mr. J. Read; third, Mr. W. Leith. One dish Runner Beans: First, Mr. W. Leith, with very fine Ne Plus Ultra; second, Mr. R. A. Horspool; third, Mr. G. Davies. Three Cauliflowers: First, Mr. J. Read, with Model; second, Mr. W. Leith; third, Mr. H. Folkes. Six Carrots: First, Mr. H. Folkes, with Scarlet Intermediate; second, Mr. W. Leith. Six Parsnips: First, Mr. W. Leith; second, Major Clive; third, Mr. F. C. Clark. Mr. Sydenham offered prizes in several more classes.

Collection of vegetables, nine kinds: First, Mr. J. Hay, gardener to Captain Cecil Hunt; second, Mr. J. Bush, gardener to Captain Butler; third, Mr. J. Delamere, gardener to the Rev. E. M. Furley.

Collection of vegetables, twelve kinds: First, Mr. James Gibson, with very fine Onions Ailsa Craig, Cauliflowers, Carrots, and Leeks; second, Mr. E. Beckett; third, Mr. B. Ashton.

NON-COMPETITIVE EXHIBITS.

Messrs. Dobbie and Co., Rothesay, made a grand display with Dahlias, chiefly Cactus and Pompon, Pansy blooms, and a fine collection of Potatoes in baskets. Large gold medal.

Messrs. Wm. Cutbush and Son, Highgate, N. had a miscellaneous display of hardy herbaceous flowers, a miniature rockery of alpine, &c. Silver-gilt medal.

The Ranelagh Nurseries Company, Leamington, showed a good group of Asparagus myriocladus. Small gold medal.

A most interesting collection of Oranges and Lemons was exhibited by Mr. R. Milner, gardener to Miss Talbot, Margam Park, Port Talbot. Silver medal.

Mr. Myers, Sutton Lane Nursery, Shrewsbury, made a very bright display with zonal Pelargoniums effectively arranged. Small gold medal.

Messrs. Dicksons, Chester, exhibited a bank of Phloxes, Delphiniums, Poppies, Lilies, &c., and also a group of stove plants, making altogether a notable display. Small gold medal.

Mr. F. Bouskell, Market Bosworth, showed a miscellaneous collection of hardy herbaceous flowers in great variety. Silver-gilt medal.

Messrs. Hewitt and Co., Solihull and Birmingham, had a bright array of hardy flowers, boldly and effectively arranged. Silver-gilt medal.

Mr. W. B. Child, Acock's Green, made a good display with hardy herbaceous flowers set up in large bunches. Small gold medal.

Messrs. J. Backhouse and Son, York, had a miniature rockery of alpine that contained many choice things. Silver medal.

Mr. Edwin Murrell, Portland Nurseries, Shrewsbury, exhibited Roses well, both in vases and in boxes. Small gold medal.

Messrs. William Bull and Sons, King's Road, Chelsea, S.W., showed a very choice group of ornamental-leaved stove plants. Silver medal.

Captain Holford, Westonbirt, Tetbury, Gloucestershire (gardener, Mr. Chapman), exhibited some of his famous Amaryllis. A remarkable display so late in the season. Large gold medal.

Pentstemons, Phloxes, Stocks, and Carnations were finely shown by Mr. John Forbes, Hawick. Silver-gilt medal.

Messrs. Sutton and Sons, Reading, had a grand display of Gloxinias in many lovely varieties. These were arranged upon a low staging so that one could see them to the best advantage. Arranged among Ferns and other small decorative plants they were very effective. Some crested forms of the tuberous Begonias were also shown. Large gold medal.

Fruit trees in pots were finely shown by Messrs. T. Rivers and Son, Sawbridgeworth. The Peach and Nectarine trees were loaded with fruits, and apart from their economic value made really effective decorative plants. Vines, Cherries, Apples, Apricots, and Plums were all well shown growing in pots. Among the best Peaches were Champion, the new Peregrine (award of merit, Royal Horticultural Society, last Tuesday), Crimson Galande, while Nectarines Milton and Dryden, and Cherries Late Duke and Emperor Francis were fine. Large gold medal.

Mr. T. R. Hayes, Keswick, Cumberland, had a good display of Heaths, making an unusual and interesting exhibit. Menziesia polifolia alba was very pretty. Romneya Coulteri and Scolopendrium crispum majus were finely shown too. Silver-gilt medal.

Messrs. Blackmore and Langdon, Twerton-on-Avon, Bath, showed tuberous Begonias very finely. Small gold medal.

Messrs. B. R. Davis, Yeovil, also exhibited some very good tuberous Begonias. Silver-gilt medal.

Messrs. Richard Smith and Co., Worcester, had a very attractive group of miscellaneous hardy flowers in great variety. The Campanulas, Lilies, Gladioli, Clematis, Phloxes, and Rudbeckias were particularly good. Small gold medal.

Mr. H. Deveril, Banbury, showed zonal Pelargoniums and hardy flowers. Silver-gilt medal.

Messrs. Gunn and Sons, Olton, Birmingham, showed hardy flowers in good variety. Silver medal.

Mr. John Russell, Richmond, exhibited a group of ornamental-leaved stove plants, that contained many good Alocasias, Crotons, &c. Small gold medal.

Ferns and table plants were well shown by Messrs. Pritchard and Sons, Shrewsbury.

Messrs. John Peed and Sons, West Norwood, S.E., exhibited an excellent group of Caladium in some distinct and bright colours. Small gold medal.

Messrs. Laing and Mather, Kelso-on-Tweed, showed a lovely lot of Carnations. Some of the varieties were very fine, distinct, and of rich colouring. Silver medal.

Mr. J. H. White, Worcester, exhibited hardy flowers in great variety. Silver-gilt medal.

Mr. H. Eckford, Wem, had a splendid display of Sweet Peas. Silver-gilt medal.

Messrs. Clibran, Altrincham, showed hardy flowers—Carnations, Sweet Peas, &c.—in great variety. Silver-gilt medal.

Double St. Brigid Anemones were finely shown by Messrs. Reamsbottom and Co., Alderborough Nursery, Geashill, King's County, Ireland. They made a pretty and unique display. Silver-gilt medal.

Hobbies, Limited, Dereham, exhibited Dahlias and Roses in quantity and great variety, making a bright display. Large gold medal.

Messrs. W. and J. Brown, Peterborough and Grantham, showed a bright miscellaneous group of flowers. Silver medal.

Dahlias in great variety and quantity, Begonias, Phloxes, Pelargoniums, and Potatoes were exhibited by Messrs. Jarman and Co., Chard. Small gold medal.

AWARDS.

First-class certificates were given to Cactus Dahlias Brightness (Mortimer), Lucifer (Dobbie); Hippeastrums Guiding Star and Meteor (Captain Holford); Senecio divorum and Astilbe Davidii (J. Veitch).

Awards of merit were granted to Chrysanthemum maximum King Edward VII. Angus, Penicuik; Carnation Aglaia (Bouskell), Cactus Dahlias Golden Drop and Shrewsbury (Mortimer), Chrysanthemum maximum x leucanthemum (Bouskell), Hippeastrums Vesta and Draconis (Captain Holford), Carnation Queen (Lambert, Southport), Carnations Mrs. Nicholson and Gladys (Aldersey).

* * * "Answers to Correspondents" are unavoidably held over till next week.

* * * The Yearly Subscription to THE GARDEN is: *Inland* 15s.; *Foreign*, 17s. 6d.

THE GARDEN

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[AUGUST 29, 1903.]

THE FLORIST v. GARDEN HOLLYHOCK.

SO much interest has been aroused in this noble garden flower through the paper given by the well-known grower, Mr. Webb of Saffron Walden, at the last meeting of the Royal Horticultural Society, that it will be interesting to criticise the flowers that the florist delights to praise and those considered of the best effect in the garden. On the following page two illustrations are given, one showing a florist's flower and the other a garden variety with broad guard petals. There can be no doubt whatever that the florist's Hollyhock, from the point of view of beauty, is much too round and tight and full of petals. In many cases also the spike is too much crowded with bloom. Of course, no one wants a thin or empty spike in a garden Hollyhock. There is just a point where the most supreme beauty of which the plant is capable culminates, both in the fulness of the spike and in the fulness of the individual bloom. In obedience to a false ideal, the florist's Hollyhock has been pushed beyond this point, and is no longer so good a thing in a garden as many a chance seedling that has no claim to good breeding.

In the show flower the petals are too much crowded, and the whole flower too round and ball-like. Beauty in a garden flower is better than tightness or even than rotundity.

This case of the Hollyhock is only one of many in which the influence of the show is unhelpful, even if not harmful, to garden progress. But surely the Hollyhock is, above all things, a garden flower. We feel quite sure that growers will be only consulting their best business interests if they would give attention to producing the kind of flowers that are now wanted. Any grower who could be the first to establish a strain of plants answering to the present needs would be astonished at the healthy demand for the plants that would ensue.

What is wanted is a wide flower with a large and distinct guard petal, and that the mass of petals in the middle of the flower should not be so closely packed as to prevent the play of light and shade, or hide its wonderful effect of the value of the colour. This play of colour in the shaded depths of the flower adds materially to its brilliancy; when it is shut out by the closely-folded packing of the inner petals one of the most charming of its beauties is entirely lost, and an important source of

brightness when seen at a little distance is destroyed.

The favourable exception mentioned above was in the case of a flower of deep and pure sulphur colour, whose looser centre and distinct guard petal made the bloom stand out among its fellows as a thing of rare and refined beauty.

The following notes from Mr. Richard Dean concerns chiefly the florist's Hollyhock. We should be glad to hear from readers who have been successful with the Hollyhock as a garden flower as to the means this success is attained, soil, position, and so forth.

There can be no doubt as to the importance of the place that these grand plants have in our gardens. Their great stature, monumental aspect, and beauty of varied colouring entitles them to the most careful consideration we can possibly give, and though they are already extremely popular plants and widely grown, we should like to see them even better treated.

The scourge of the Hollyhock fungus which attacks so many plants of the Mallow family has of late years deterred many from growing them. No one can suffer more from this than the present writer, in whose garden, on dry, sandy soil, the pest is rampant, and Hollyhocks cannot be grown to anything like perfection. Still they can be grown to a certain degree by means of strong feeding, and though when the spike is in flower the lower leaves are lost, there is still the grand bloom. In this case they are placed so that they rise among other plants and the defect at the base is not seen.

We are informed by a nurseryman who grows these fine plants largely that growing them in a quite open place, where the early leaves get hardened by exposure to sun and air, is a safeguard against disease; still, in garden use, such a place cannot always be given.

It is much to be wished that some nurseryman or patient amateur who lives upon the cool loamy soil where the pest does not thrive would take in hand the raising of these grand plants in the form that is the most beautiful for gardens.

"With the revival of interest in that old florist's flower, the Verbena, there is also forthcoming evidence that the Hollyhock is also rising in the estimation of the flower-loving public. This was shown by the remarkable collection of fine double varieties exhibited by Messrs. Webb and Brand, who succeeded to the business carried on by the veteran William Chater at Saffron Walden for many years, a florist who took up the work of improving the Hollyhock at a point when it was dropped by Charles Baron, the working man florist,

who was the pioneer of its early development from a single form.

"Perhaps no finer spikes of Hollyhocks were ever seen than those produced by William Chater and the Rev. Edward Hawke, afterwards Lord Hawke, whose son and successor to the title is the present captain of the celebrated Yorkshire cricket team, when these two used to compete against each other at Bishop Auckland and other places thirty years ago, exhibiting spikes of very fine double flowers 3 feet to 4 feet in length, and perfectly symmetrical. Then followed the ravages made by the fungus and the destruction worked among collections. It fell to the melancholy lot of William Chater in his old age to witness the almost or quite entire loss of varieties of high quality he had the good fortune to raise, losing them when the deadly action of the fungus was at its height. I used to make an annual visit to the veteran, and the manner in which he sorrowed over losses he could not prevent was pitiable to see. He attempted many expedients to ward off the disastrous effects of the fungus, and, previous to his death, fortunately witnessed considerable mitigation of its disastrous effects. His successors, Messrs. Webb and Brand, by dint of most painstaking culture, have gradually built up a fine collection, including some of Chater's varieties, which were happily saved from entire destruction, and also some varieties they have been able to raise. It is also satisfactory to know that there is a growing demand for the best double varieties of this stately plant.

"The collection staged by Messrs. Webb and Brand included eighteen spikes, which formed a background to six boards of cut blooms, each board containing twenty-four flowers, all of excellent quality. Unfortunately for the value of this collection as an object-lesson, none of the varieties were named, but among them were such leading sorts as Alba superba, pure white; Amaranth, deep amaranth pink, extra fine; Black Knight, improved, a distinct shade of shining black, probably the best of the dark varieties, and a colour the most difficult to get in association with the finest symmetry; Carus Chater, deep glowing crimson, a large, full variety, which forms a very fine spike; Crimson King, intense deep crimson, and probably the deepest of that shade of colour; Exultium, glossy maroon; Fire King, bright red, a large full flower of excellent form; Heliotrope, shaded heliotrope, of a peculiar tint of colour, and affording desirable variety; James Allen, deep claret, fine in colour, and most distinct; Miss Lizzie King, clear yellow, forms a fine spike; Mrs. Bailey, delicate shade of flesh, large, and striking in the spike; Olivia Chater, delicate flesh, with a surface of white, quite distinct; Ovid, a charming rose-tinted flower; Primrose Gem, soft primrose, with a tint of carmine; Princess, rosy pink, suffused with buff, pretty and distinct; Purity, salmon, flesh shaded at the base of the petals; Rose Queen, silvery rose, small in size, but very pleasing; Ruby Queen, rich ruby crimson; and Victor, crimson-scarlet, with a sheen of buff, a large, bold flower of fine character.

"Hollyhocks can be planted out either in the autumn or spring, but unless the soil in position on which the plants are to be grown are favourable—the soil fairly well drained, and the position a slightly elevated one—it would be well to pot the plants, keep them in a cold frame during the



FLORIST'S HOLLYHOCK. (Reduced.)

winter, and plant out early in April. But fine Hollyhocks can be produced only in a richly manured soil, the plant being a somewhat gross feeder. It is therefore customary to deeply trench the ground the plants are to occupy, working in a quantity of well-rotted manure. In hot and drying weather surface mulchings with manure are of great value, thus keeping the surface of the soil cool and moist, and also acting as a fertiliser. Plants which have bloomed are helped through the winter by placing a surface of cinder ashes or coarse sand round the stem, so that water may be drained away from the hearts of the plants, which would otherwise do them injury." R. DEAN.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

September 1 and 2.—National Dahlia Society (two days); Meeting of the Committees of the Royal Horticultural Society on the first day. Both exhibitions at the Drill Hall, Westminster.

September 9.—Great Autumn Show of Royal Caledonian Horticultural Society (two days). This show is held in Edinburgh; Dahlia Show at York.

September 11.—Manchester Dahlia Show.

September 15.—National Dahlia Society (Committee Meeting); Royal Horticultural Society (Meeting of Committees), twelve noon.

September 16.—Hull (two days).

September 29.—Royal Horticultural Society and Conference at Chiswick (three days); Gardeners' Dinner, Holborn Restaurant, six o'clock.

Improvement of the Heuchera.—Your correspondent G. Mallett, in his description of the Heuchera, in describing Robusta and Walker's variety mentions them as being pale coloured forms. This is very misleading. Walker's variety is one of the brightest I have yet seen, with exceptionally large individual flowers; in fact, it is the nearest approach to the original plant introduced by me from Mexico that I have yet seen.—AMOS PERRY, *Winchmore Hill, London, N.*

Royal Horticultural Society.—This society will hold a special exhibition of Dahlias on September 1 and 2, in conjunction with the National Dahlia Society, in the Drill Hall, Buckingham Gate, Westminster. At this meeting (unless by special arrangement and permission) only Dahlias can be shown, with the exception of flowers, fruits, &c., for certificate. All Dahlias, including those shown for certificate, must be left on exhibition until 6 p.m. on the second day. A lecture on "Judging Cactus Dahlias" will be given on September 1 by Mr. C. G. Wyatt at three o'clock. At a general meeting of the society held on Tuesday, the 18th inst., twenty-five new Fellows were elected, among them being the Right Hon. Sir Francis H. Jeune, G.C.B., Colonel T. H. Skinner, and Dr. A. Henry, making a total of 1,095 elected since the beginning of the present year. Intending exhibitors at the fruit and vegetable show, to be held at Chiswick on September 29, 30, and October 1, can obtain an official entry form, together with schedule

of prizes, on application to the Secretary, Royal Horticultural Society, 117, Victoria Street, London, S.W. Entries for this show close on September 22. There will be a special tent for horticultural sundries. A cold luncheon will be provided on September 29, at which the council, judges, and the committees will be present, and for which all interested in the show can obtain tickets (3s., including wine or beer), on application to the Secretary, 117, Victoria Street, S.W., before September 27.

The season's fruit crops.—When such an authority as Mr. G. Bunyard describes the present fruit season as the worst he can remember, it may be taken for granted that things are generally bad. How bad they are no one realises more than the little market grower who is dependent for a living on his orchards and plantations, and amongst this worthy class of men there are some whose financial foundations will be sorely shaken this year. Amid the story of general disaster the small fruits, such as Currants, Gooseberries, Strawberries, and Raspberries are the redeeming feature, for even if some of these have not been quite up to the average, the high prices obtained have compensated for any shortage. Many Black Currant growers have had to be satisfied with half a crop, but with the wholesale price at 24s. a bushel, they did something to compensate for losses in other directions.—H.

Physianthus albens.—A plant of this old greenhouse creeper, trained to a balloon-shaped trellis, and well grown and bloomed, was shown among the specimen greenhouse plants seen at the recent Taunton Deane flower show. It was introduced from Brazil in 1830; it is evergreen; its common name is the White Bladder Flower, referring to the bladder-shaped blossoms, which are creamy white and freely produced. It is a subject which can be occasionally met with trained to the rafters of a greenhouse or against a back wall. It is most at home when planted out in a greenhouse, the warmth of such a house sufficing to keep the plants in good health during autumn and winter. A compost of peat, rotten manure, and some sand suits it. It is said that the plant will live for many years if top-dressed in spring with new soil, and assisted through the growing season with manure water. It is always interesting to see an old plant produced in such fine character as it was at Taunton.—R. DEAN.

Gardening at Earl's Court Exhibition.—In the western gardens attached to this popular place of resort a praiseworthy attempt has been made this season by planting some beds of old English flowers—sweet-scented Stocks, Mignonette, Carnations, Sweet Williams, herbaceous Phloxes, Pentstemons, stately Delphiniums and Hollyhocks, Campanula pyramidalis, blue and white, Lobelia cardinalis, a striking picture by reason of its vivid scarlet flowers admirably contrasting with its well-known dark foliage, scarlet Nasturtiums, &c. It would be well to repeat this old English garden idea at Earl's Court next year, and on a much extended scale. It is but bare justice to mention that the western gardens have this year, for the first time, been tastefully furnished by Mr. George M. Bick, F.R.H.S., of Shortlands, Kent.—Quo.

The Gardeners' Dinner and Reception.—As we are fast approaching the date of this much-looked-for gathering, September 29, kindly permit me to remind all those who may purpose being present at what will undoubtedly be a unique gardening function, that they should waste no time in securing tickets, as they are fast being issued. We have been compelled to set a limit to their number. Many friends will be much gratified to learn that our famous rosarian, the Rev. Dean Hole, has secured a ticket and hopes to be present to greet his many brothers in horti-

culture, as also to support our very estimable chairman, Mr. Leopold de Rothschild. Many others famous in gardening will be present. It does seem as if the show at Chiswick might be the last held there. In any case no other such opportunity to see the old garden as the show presents may again exist. Many gardeners may find gathered at the dinner friends from distant parts whom they may never see again. Applications should be made direct to me at 62, Richmond Road, Kingston-on-Thames.—ALEX. DEAN, *Hon. Secretary.*

Begonia Lafayette.—A correspondent, "T.E.," in referring to this very beautiful Begonia, suggests that as it is not a robust grower it must be planted thickly to produce a good bedding effect. That is just the common mistake made in planting Begonias as summer bedders. If the writer could see the large oblong bed near the river front at Hampton Court, planted with this superb double-flowered Begonia, the plants some 20 inches to 24 inches apart, and each one some 15 inches to 16 inches across and laden with flowers, he would realise that the variety was robust, and planted singly thus on a silvery carpet gave the finest effect any similar plant possibly could. Mr. Gardiner, the able superintendent there, told me that what "T.E." had said was a general opinion, but it was wrong. He sets his tubers to start slowly on Cocoa fibre refuse in a moderate heat, then transfers them into pots, and when well rooted stands them in a cold frame to harden, so that the leaves will withstand exposure when bedded out early in June.

Single Hollyhocks.—I entirely concur with Mr. Jenkins in his references to Mr. Webb's paper on the Hollyhock, read at the last Drill Hall meeting. The views expressed were entirely those of the hard and fast florist. The class of bloom favoured by the paper was exemplified in the hall then, solid round formal flowers, no doubt all that a stiff florist would admire, but were far too formal for me. There was also a lack of colour variety, whereas in the beautiful singles we see colours singularly varied and very beautiful. I have often thought that if these were not allowed to carry a tall central spike, but had it stopped when half grown, so as to induce several strong side stems to be produced, that the floral effect would be much enhanced. But even if doubles, though less formal and solid than were the Saffron Walden flowers, what capital ones can be got by sowing seed annually, thus saving all the trouble of propagating by cutting or grafting, so fully referred to in Mr. Webb's paper. Myriads of grand spikes of bloom raised from seed may be seen yearly now. The single varieties are very beautiful, and seem less prone to disease than the doubles.—A. D.

Sedum spectabile for butterflies.—As an observer of insect life for many years, I can fully endorse all that has been said by former



GARDEN HOLLYHOCK (SHOWING BROAD GUARD PETALS). (Reduced.)

contributors about *Sedum spectabile* having a great attraction for butterflies of many kinds. For moths the Red Valerian seems to be a great favourite. The small Elephant Hawk Moth is often to be seen hovering over patches of it, and many other moths as well. I may mention that at Drumlanrig Castle, in the year 1846, *Enothena taraxicifolia* was very extensively planted in the flower garden, and during the autumn evenings it was visited by hundreds of the Convulvulus Hawk Moth. Since that time I have only seen one solitary specimen, and that three years ago. — JOHN MATHEWSON, *The Gardens, Addington, Winslow.*

A flower show destroyed.—A curious accident occurred at Chirk, North Wales, on Saturday afternoon, the 15th inst. Two spacious marquees had been erected for the annual show of the Horticultural Society, and when the judges had almost completed their work the largest tent, in which some thirty persons were assembled, suddenly collapsed with a fearful smash. Several persons had narrow escapes from falling poles, and the floral exhibits were almost completely destroyed.

Mr. T. Humphreys.—We are pleased to know that a testimonial is to be presented to Mr. Thos. Humphreys, the new curator of the Birmingham Botanic Gardens, on his departure to that post from the Royal Horticultural Society. It is being confined practically to the members of the committees of the society, but there is no reason why anyone who feels so inclined should not also contribute. Subscriptions should be sent either to Mr. H. B. May, Dyson's Lane Nursery, Edmonton, or to Mr. R. Dean, Ranelagh Road, Ealing; the former is the chairman of a small committee, and the latter the secretary.

Tufted Pansy Queen of the Year. This is one of the best of the pretty miniature or Violetta type. My plants were pulled to pieces in the early spring and replanted at once. The divided pieces are now little tufts of miniature pale china blue flowers, with a small white centre; they are also sweet scented. This variety was raised by the late Dr. Chas. Stuart, who gave us so many good things. This and others of the same type are very suitable for the rock garden, and are unrivalled for their display, which begins rather later than the large-flowered sorts.

The Fuchsia as a bedding plant. The Fuchsias have always been regarded as moisture-loving plants, and if proof of this were needed the display made in several of the more conspicuous beds at Aldenham House should be convincing. The summer of 1903 is abnormal, but for all its unpleasantness it is encouraging to note those things that have done well under the circumstances. Among the many beds in this fine garden those planted with the Fuchsia are certainly the most interesting. Large and small beds are devoted to Fuchsias, and they are very striking. One variety more conspicuous than the others was *Lye's Favourite*, this being represented in a large bed by freely-flowered plants of a good size. One would have thought that the inclement weather of late would have rendered the display of little effect, yet this was one of the most attractive.

Calceolaria amplexicaulis.—The flower-beds in the gardens of Aldenham House are generally filled in a way quite different to that which prevails in most establishments, and on the occasion of a recent visit one of the most pleasing examples of Mr. Edwin Beckett's skill in this direction was a bed planted with *Calceolaria amplexicaulis*. The soft green leaves clasping the stems and the free display of lemon-yellow flowers made a pleasing contrast to a carpeting of a variegated form of *Alyssum maritimum*. Notwithstanding the excessive and continuous rainfall and the recent boisterous winds, this *Calceolaria* has not suffered. —D. B. C.

New Black Currant Boskoop Giant.—For years the older varieties of Black Currant have not been satisfactory, owing to the attacks of the mite, and this in spite of more attention to culture, such as cutting down infested trees and getting new growth. To secure a full crop we recently tried the newer introductions,

and the one named above is certainly the most valuable. So far it has been free from the pest, and promises, when the trees are larger, to be a great cropper and very free grower. In addition to its free growth, it bears very fine bunches (long and handsome) of berries; indeed, the largest I have seen of any Black Currant, while the flavour is rich. It is one of the best for tarts or preserving. There can be no doubt that the Boskoop is a decided acquisition, and well worth attention by those whose trees have been attacked by the mite. In any case it is desirable to give the trees new quarters, and as far away as possible from the older ones if at all diseased. Owing to its quick growth it soon attains fruiting size, and ample space should be given on this account. A large grower of small fruits told me recently that he considered the Boskoop Giant by far the best Black Currant grown. He was growing it largely. —S. M.

Imports of fruit and vegetables.—It is interesting to compare the imports of fruit and vegetables in July with those of the corresponding month of the two preceding years. They are as follows:

	1901.	1902.	1903.
Potatoes cwt.	784,384	1,169,294	1,047,235
Tomatoes	180,535	104,182	227,361
Onions bush.	485,996	615,319	634,190
Unenumerated vegetables	£34,735	£37,041	£33,564
Apples cwt.	48,913	35,786	80,147
Apricots and Peaches	8,325	8,461	5,810
Cherries	77,590	53,274	46,684
Currants	59,944	58,990	57,311
Gooseberries	6,516	13,089	18,130
Grapes	24,300	12,250	18,355
Pears	44,314	5,867	12,323
Plums	60,410	36,651	30,638
Strawberries	7,023	15,549	5,001
Unenumerated fruit	159,968	83,172	152,673

A few fruit notes from Ireland.—In this north-midland county in Ireland the Apple crop has been a complete failure. I was lately through an orchard district, and I did not see half-a-dozen Apples in the whole country-side. Whether there was a good bloom or not I cannot say. It is the same in all my neighbours' gardens —no Apples at all. I myself have been rather more fortunate; I have about a quarter crop. I had an excellent bloom and set, but most of the crop fell, mostly when the fruit was the size of large Walnuts. I have a full crop of *Glory of England*, *Cox's Pomona*, *Small's Admirable*, *Dumelow Seedling*, *Old Northern Greening*, *New Northern Greening*, *Lane's Prince Albert*, *Ashmead Kernel*, and *Worcester Pearmain*; and a sprinkling more or less of *Bismarck*, *Bramley*, *French Codlin*, *Lady Henniker*, *Irish Peach*, *Clarke's Seedling*, *Reinette van Mons*, and *Red Juneating*. *Cox's Orange Pippin* is bearing well, but it is against a wall. As a standard here the fruit cracks and cankers. I never recollect such a fall of Apples when quite large. My usual sheet-anchor, *Hanwell's Sowing*, has played me false this year—no crop—which is a heavy loss. I note what Mr. Crook says in THE GARDEN about *Strawberry Loxford Hall*. When I first got it, about fourteen years ago, it did very well, but has gradually been deteriorating, and now hardly grows or bears at all, and I have the same to say of *Marshal McMahon* and *Sensation*. This last bore enormously at first, but now all goes to leaves and gives no return. Messrs. Laxton's newer variety (*Fillbasket*) had a huge crop this year, but it was wanting in flavour. This may be owing to the extreme wet of the season. *Trafalgar* has much disappointed me; here it has no pretension to be a late Strawberry. It is too soon to pronounce an opinion of *The Laxton*, but so far I see no improvement in it on *Royal Sovereign*, except that it is a rather better colour. I had my first dish of *Strawberries* (*Black Prince*) this year on June 23, and my latest on August 11 (*Helen Glade*). Can anyone recommend a really later variety than this? —D. K., *County Cavan.*

Carnations at Far Forest Vicarage. I noticed some superb masses of these flowers in the Rev. G. F. Eyre's garden on the 12th inst. Soil and situation, as well as careful cultivation, were all undoubtedly in their favour, and I failed to discover a weakly or diseased plant. For bedding purposes Mr. Eyre employs only four varieties, these being *Germania*, *Ladas*, *Miss Audrey Camp-*

bell, and *Duchess of Fife*. Quite the most free-blooming was the first-named, and I should imagine it would be difficult to find a yellow variety to excel it when grown as well as it is at the Far Forest. *Duchess of Fife* was also very good, and the colour of the flowers—a delightful shade of pink—gives a very good effect in a mass. —ARTHUR R. GOODWIN.

Presentation.—An interesting event took place at the summer show of the Bishop's Stortford Horticultural Society, which was held on Wednesday, the 12th inst., in the grounds of The Grange, Bishop's Stortford, by permission of Mr. John Barker, J.P. It was a presentation to Mr. William Smith (late hon. secretary) of his portrait in oils in appreciation of the admirable way he has carried out the duties since the formation of the society in 1870. The presentation was made on the terrace at The Grange by Mr. Treham Gilbey, the president for the year, in the presence of a large and distinguished party of visitors. The president remarked that since the society was started it had seen its ups and downs, but in Mr. Smith they had had the right man at the helm, and the show was now the best within sixty miles of London. This was entirely due to the energy and unfailing pluck of their late hon. secretary. Sir Walter Gilbey and Mr. John Barker endorsed these remarks, and Mr. Smith in reply said the fortunate position he was in was quite as much due to force of circumstances as to his own merit. At the time the show was started there was a great want of it in the neighbourhood, and the hearty way in which it had been supported had made it an easy task for him. He did not think he deserved such recognition, more especially after the handsome present of a gold watch and chain given him on completing twenty-one years' service. The show this year was one of the most successful the society has ever held. Among the principal prize-winners were Colonel Archer-Houblon, Sir James Blyth, Bart., Messrs. John Barker, R. C. Gosling, John Balfour, Felix Calvert, Charles Gold, Charles Gold, jun., M. Taylor, C. J. Hegan, &c.; while complimentary exhibits were sent by Messrs. Paul and Son, Cheahunt; Messrs. T. Rivers and Son, Sawbridge-worth; Mr. Amos Perry, Winchmore Hill; Mr. H. C. Pulham, Elsenham, Essex; Messrs. G. E. Swarder and Sons, Bishop's Stortford; Messrs. T. S. Ware, Limited, Feltham; Mr. S. Mortimer, Farnham; and Mr. W. Stacey, Dunmow.

TOWN GARDENING.

"The world is full of honey-bees, the world is full of Roses,
And all the world's a garden, with summer to and fro."

EVEN sun-spot summers cheer up as we near July; draughts from the great big furnace are now less rough, flowers and trees have settled down, and towns and cities share the bounties of sweet summer time. Not only London, but all our country towns are at their fairest in July; fair as towns could never be without their growing flowers by wall and window-sill, their clustering trees, their parks, their façades green with foliage.

Lovely at all times as are leafy trees, bright flowers, and crimsoning creepers, never do they look quite so beautiful as among the grey stones and sombre buildings of our scholastic and cathedral towns. Harrow for instance, or Salisbury, or Exeter, or the many-spired and towered cities of Oxford and Cambridge. Great is the joy of contrast. Who has not felt a thrill of pleasure at the almost unearthly beauty of young leaves on the old walls of New College, Oxford, or on treading the soft, fine turf of University quads and gardens, old as the centuries, yet new with every spring?

Passing along and up the main thoroughfare of a big town like Norwich—which happens to be the last cathedral city we have seen in summer garb—how great the debt of gratitude

we feel to those who have made gardens of the many quaint old churchyards in the city's centre, who planted corners with shady trees, and covered walls with Ivy.

"No breathing man,
With a warm heart, and eye prepared to scan
Nature's clear beauty, could pass lightly by
Objects that look'd out so invitingly
From either side."

The climax of perfection is reached as we near cathedral precincts, where old-world buildings stand bathed in sunshine, breaths of music tossed from wall to wall like spray. Bosomed in leaves and flowers is every door and archway, nor are the window-sills forgotten, nor the little gardens that front each ancient dwelling, everywhere the waving of soft boughs, the sweetness of fragrant blossoms. Here bees hum, and birds are building, yet we are close to the heart of town. Other town gardens there are around an ancient pile, much more hemmed in, and even yet more welcome. We reach them through a narrow passage from the Strand.

"Flora and Law a common Temple share,
And rival Roses still contest it there."

This is a couplet the truth of which no lawyer will deny, and Londoners are just as glad of this oasis in the City's drought and dryness as are the country cousins who come to listen to the splashing of Tom Pinch's fountain, and the cooing of the Temple doves, finding, perhaps to their surprise, that not only on flower-show days, but always and on every day our London lawyers taste the sweetness of Rose and Musk and Lily. The Temple Benchers are great on flower-boxes; the deep recesses of their window-bays in spring as well as summer repeat the blues and reds and purples and yellows of the stained-glass saints and patriarchs who look down on the mailed crusaders sleeping stonily in the quiet round church.

Other English towns there are, very different from these, where July gardens, if less picturesquely placed, may give an even greater joy. I mean the garden-world of our pottery and mining towns. Miners are almost invariably good gardeners. The brawny crowd that dwell in districts honeycombed with pits, lurid with furnaces, heaped up with refuse barren as the moon, and dulled by day with sulphureous smoke, love flowers as dearly as any dainty lady, who is often much less well versed than they are in flower-lore and their practical management.

Longton, in Staffordshire, is a type. This crowded, grimy place has a park, not outside the town but right in the midst of its busy streets, where trees grow and flowers bloom, and there is a bowling green, a lake, a band-stand, and, above all, a flower show once a year, where prizes are competed for, a proof of what the Longton folk can do. Among the prize winners may be a man whose bread is earned by the turning of cups upon a wheel, or by hewing coal or ironstone in deepest depths of darkness, while we above are happy in the daylight. Such toilers as these are the men who most enjoy God's sunshine and the sight and smell of flowers, who grow them too, and love to have their houses bowered with branches of Jasmine and climbing Roses. Many of them are keen on vegetables, and experts in the growing of Celery, Cucumbers, and the Tomato. Sunday mornings are often spent happily and not unprofitably in discussing the rival schemes of culture of Petunias, Pelargoniums, and Lilies. Undismayed and undeterred by unfavourable surroundings, these busy people—through the gate of flowers—enter into the joys and share the glories of the July days, or perhaps it is the evenings that are the pleasantest, when the resting town is

wrapped in haze, and coal-smoke is forgotten in the fragrance of Geranium and "Cherry-pie."

A little bit of Nature, how good it is among the bricks and chimney-pots. Nothing need rob us of the God-sent heritage. It is ours, unless we shut it out, and the moral of it all is—bring Nature into towns. When we cannot enjoy it in its fulness let us try for it in little pieces.

"A dusty knot of fingered flowers
Recalls the breezy fields."

So wrote a poet who much loved Nature. We agree with him; and here is another text, the truth of which has been proved by many a townsman, "Do you know that the word *Paradisos* means a garden?" F. A. B.

THE MAKING OF POT-POURRI.

IN reply to "E. T.," we cannot do better than quote Miss Jekyll's remarks in "Home and Garden," page 164: "'Do tell me how you make your Pot-pourri?' is a question that comes often during the year; and it is so difficult to give a concise answer, or a short written recipe, that I will just put down all I can think of about the material and method that go to its making, in the hope that it will help others who wish to prepare the fragrant compound on their own account. And though anyone can make Pot-pourri after a fashion, yet to make it well and on rather a large scale, a good deal of care and a good deal of time are needed, besides suitable space and appliances, and a proper choice of material.

"The greater part of the bulk is of Rose petals and Sweet Geranium leaves, then in lesser quantity, Lavender, leaves of Sweet Verbena, Bay, and Rosemary, prepared Orange peel, and finally Orris-root powder, and various sweet gums and spices.

"There are of course the two kinds of Pot-pourri, the dry and the moist. The dry is much the easier and quicker to make, but is neither so sweet nor so enduring, so now the moist is the only kind I care to have. One of the chief reasons why it cannot be done by a fixed recipe is that the materials have first to be got to a certain state—limp and leathery—neither too wet nor too dry; and this state can only be secured by trying, and feeling one's way, and getting to know. When the ingredients are dried to the right degree, they are packed tightly into jars with a certain mixture of salt, which seems to combine with the remaining moisture, and serves both to retain the mass at the right degree of dampness, and also to preserve it from any kind of decay or mouldiness. In my own case, as a considerable quantity is made, I find it best to prepare a jar of each ingredient by itself, and then to mix all together; but when the whole making is small, there is no reason why it should not all go into one receptacle until the time comes for adding the spices. In the whole arrangement the matter that wants most care is the proper preparation of the Rose petals. And the Roses must be in good order. They may be full blown, but not be faded or in any way injured, and above all they must be quite dry. A Rose is a great hand at holding water. If it has been rained into when first opened, it will hold the wet in its inner depths two days afterwards. Dew does not seem to go so far in, and is generally dried by noon; but in any case it is safest to gather the Roses on a warm sunny afternoon.

"So every two or three days, when Roses are in plenty, we bring them in, perhaps a bushel-basket-full at a time. If they cannot be picked over at once, they are laid out, not more than three inches thick, on a rough hempen wrapper about three yards long by two yards wide; if they were left in the basket they would soon begin to 'heat' and spoil. The shady, paved garden court on the north side of the house is the chosen place, and the Rose-cloth is spread where the broad passage upstairs over-

hangs, so that we can sit below in shelter even in rain. Then at the earliest opportunity the Rose petals are pulled off their hard bases, and carefully sifted through the fingers so as to separate them as much as possible. Sometimes visitors are pressed into the service, sometimes the little nieces come down from their home close by, and often I go and pick them over after dark in the pleasant summer evening. It is just as easy to do without any light, and then one enjoys all the more the wonderful fragrance and the pleasant cool texture; and plunging hands or face into the mass, delicious alike to scent and touch, one calls to mind how such generous measures of plucked Roses played their part in the feasts of ancient Rome.

"The separated petals lie on the cloth for two days, or for a longer or shorter time, as the air may be more or less drying, in order that they may lose a part of their moisture; how much I cannot say, but perhaps half, as they look to be shrivelled to about half their size; and now they are ready to go into their preparation jars. After making shift for some years with various odds and ends of jars, the best of them being a big blue and grey German one and some South Italian oil jars, I had some made on purpose at Doulton's pottery. The material has to be firmly and evenly pressed, as it lies in the jar layer on layer, and as this is difficult to arrange in any vessel of bulging form, my jars were made quite cylindrical, and they answer admirably. They stand twenty-two inches high and have a diameter over all of ten inches, and have flat flanged lids with loop handles. They are of the strong buff stoneware, like salt-jars, glazed inside and out. In order to keep the material well pressed down, I had some leaden discs cast of such a diameter as to go easily inside; these are five-eighths of an inch thick, and weigh fourteen pounds each, and have also handles to lift by.

"The Rose petals are thrown in, about two good handfuls at a time, and are made to lie close together by gentle ramming, and have a thick sprinkling (not quite a covering) of the salt mixture. This is of equal parts bay salt and kitchen salt; the bay salt, which comes in hard lumps, being roughly pounded, so that the greater part of it is in pieces the size of peas or smaller. The Rose leaves are put in as before, two handfuls or so, rammed, salted, and so on till all are in, then the leaden weight goes in, and the jar is covered till the next supply is ready.

"The process is the same with the leaves of Sweet Geranium, only that they are taken off their stalks before they are dried, and all but the smallest are pulled into three or four pieces. They take about as long to dry as the Rose petals, and are laid out in the same way on the Rose-cloth. Sweet Verbena is of such a quick-drying nature that it has only to be stripped from the stalk and can be put in the jars at once; also Bay leaves, Rosemary leaves, and Lavender; but all are treated alike in that they are put into the jars in moderate layers, lightly rammed, salted, and pressed.

"Lavender, whether for Pot-pourri or for drying, should be cut as soon as a good proportion of the lower flowers in the spike are out. My friends often tell me that my Lavender smells better than theirs; but it is only because I watch for the right moment for cutting, and am careful about the drying. If it is picked for drying and is laid too thickly, it soon goes mouldy; it must be laid thinly and turned once or twice till it is dry enough to be safe.

"An important ingredient in Pot-pourri is strips of Seville Orange peel stuck with Cloves. The peel is taken off and cut in pieces from end to end of the Orange, so that each is about half an inch wide in the middle and two inches long; holes are pricked in it, and the shaft of the Clove pressed in so that the heads nearly touch each other. The pieces are then packed into a jar firmly with the hand—they would not bear ramming—with sprinklings of salt in between and over the top. This is the first ingredient to be made ready, as the Oranges are in season from the end of February to the middle of March; the last batches of preparation being made towards the middle of September, of the later pickings of Sweet Geranium.

"The materials seem to be mellow and better for being left for some time in the preparation jars, so I put off the final amalgamation till near the end of October. The jars now hold the produce of some seven or eight bushels of Rose petals, about four bushels of Sweet Geranium, and another bushel of various sweet leaves, all of course much reduced in bulk by drying and ramming; with this is about fifty pounds of the mixed salt.

"Now we have to get together the spices, sweet gums, and Orris-root. As an improvement on plain Orris-root it is advisable to use Atkinson's Violet Powder; we therefore have five large packets violet powder, 1lb. ground allspice, 1lb. ground Cloves, 1lb. ground Mixed Spice, 1lb. ground Mace, 1lb. whole Mace, 1lb. whole Cloves, 1lb. pounded Gum Benzoin, and 1lb. pounded Gum Storax or Styrax. All the powders are mixed together in a large bowl and the whole Mace and Cloves in another bowl, and now we are ready for the grand mixing. A space is swept on the brick floor of the studio just in front of the raised hearth of the broad ingle; the full jars are brought into a wide half-circle, the home children and their elders, and perhaps one or two neighbours, are convened to the Pot-pourri party, with tea to follow; one mixer is posted at each jar or bowl, and the materials are thrown handful by handful on to the floor in the middle space.

"When first I made Pot-pourri it could be mixed in a large red-ware pan; as I grew more ambitious the mixing was done in a hip-bath, in later years in a roomy wooden tub, but now the bulk is so considerable that it can only be dealt with on a clear floor space.

"The heap rises, and from time to time has to be flattened as the jolly party all round throw in their handfuls. The post of honour seems to be the distribution of the Orange peel stuck with Cloves, but the claim for the supreme dignity of this office is clearly though tacitly contested by the holder of the large basin of 'sauce' of sweet powders. The pressed stuff in the jars is so tightly compacted that it has to be loosened by vigorous stabs and forkings with an iron prong, by one whose duty it is to go round and fork it up so that it can be handled; this official can hardly get round in time to satisfy the many calls of 'Please give me a stir up.' The heap grows like one of the big ant hills in the wood, until at last all the jars are empty, and everyone's hands are either sticky with salt or powdery with sweet spices. Now the head Pot-pourri maker takes a shovel, and turns the heap over from left to right, and then right to left several times till all is duly mixed. Then the store cask is brought forward: a strong iron-hooped Oak cask with a capacity of fifteen gallons. It looks as if the fragrant heap could never be got into it, but in it goes shovelful by shovelful, and again it is rammed, until all is in, leaving only a bare two inches of space on the top. The cask has been made on purpose and has no upper head, but a lid with a wood-hooped rim that fits over the edge, and a knob handle set out of the centre, the easier to lift the cover by jerking it to one side.

"The full cask is now so heavy that it is a job to get it back to its place against a farther wall; it must weigh a hundredweight and three quarters, possibly more. If the mixture stays some weeks or even months in the cask before any is taken out, by remaining untouched for a while it seems to acquire a richer and more mellow scent.

"The studio floor is left in a shocking state of mess. A wide space in front of the ingle shows a dark patch of briny moisture; footmarks of the same are thick in the neighbourhood of the site of the heap, and some small tracks further afield show where little feet have made more distant excursions; but it is growing dark, and we must leave it and wipe our shoes and go in to tea, and there will be a half-day's work for the charwoman to-morrow.

"The foregoing description answers my friends' questions as to how I make Pot-pourri; but it does not follow that they may not make it in different and better ways, according to the degree

possess a distinct beauty, and where it will do, as shown in the illustration, that is a climate to suit many tender things of extreme beauty and interest. Its value as a wall shrub is well shown, the flower-laden shoots falling over the wall in welcome profusion. It is hardy in this sense, that it is quite happy in southern counties with a little winter protection.

LILIUM POMPONIUM.

MR. ELWES, in his "Monograph of the Genus Lilium," says that the Lily which went by the name of *L. pomponium* in English gardens during the last century until Mr. George Maw, about 1875, reintroduced the true type from the Maritime Alps of Northern Italy, was the dull red variety of *L. pyrenaicum*. Mr. Elwes does not know the date or place of the origin of this variety, of which he figures a flower. He found, however, that it had so universally taken the place of the true *L. pomponium* as to give rise to a suggestion that it may be a degenerate form of that species changed by long cultivation. But if this is so, the typical yellow *L. pyrenaicum* must also be—as indeed Mr. Baker strangely suggests that it is—a variety of *L. pomponium*. Having cultivated the red and the yellow *L. pyrenaicum* together for many years, I can affirm confidently that there is not the least difference in character or habit between the two, except the colour of the flower, both being equally perispermous, and increasing with equal rapidity. On the other hand, I have always found the true *L. pomponium*, which has several obvious characters distinct from those of *L. pyrenaicum*, very difficult to establish and persuade to flower at all. The true species can now be obtained from several bulb dealers at a reasonable price, but I seldom meet with it in gardens, and more frequently find the red *L. pyrenaicum* doing duty for it. There is no doubt that *L. pomponium* as well as *L. pyrenaicum* was well known in cultivation by Clusius and Parkinson, who correctly describe and figure both, assigning to them their true habitat Northern Italy and the Pyrenees respectively.

There is an interval of about 100 miles between the eastern limit of *L. pyrenaicum* and the western of *L. pomponium*. The confusion between the two species prevailed early in the nineteenth century, perhaps owing to the appearance in gardens then of the red form of *L. pyrenaicum*, which proved far easier to cultivate and keep. In the *Botanical Magazine*,

tab. 798 (A.D. 1805), we find the typical yellow *L. pyrenaicum* figured and described as *L. pomponium*, and in the same work, tab. 971 (A.D. 1807), "*L. pomponium* with scarlet flowers." This last seems to be the true *L. pomponium*, though the leaf characters are not distinctly shown, the plate being confined to the flower-head. In the description of tab. 798 the plant is said to be found in the Pyrenees, and to "vary with red and yellow flowers," but probably this is said because the two species were confused. Mr. Elwes says that *L. pomponium* thrives and increases in his garden.

As I said above, I have tried in vain to please it. The bulbs survive and make a weak growth for two or three years, the occasional shabby flowering showing a brilliancy of scarlet even more vivid than that of *L. chalcedonicum*. I should be glad



SOLANUM CRISPUM OVER A WALL IN THE SOUTH-WEST.

(From a photograph by Miss Willmott.)

of personal intelligence and ingenuity that they may bring to bear on the material they have at disposal."

NOTES ON HARDY PLANTS

SOLANUM CRISPUM.

SO luxuriant a growth of *Solanum crispum*, shown in the illustration, will be interesting to many gardeners, amateur and otherwise. It is from a photograph taken in a garden in the south-west, and in the southern gardens of England it is hardy. Not so, however, in the midlands and the north. Its delicate purple-coloured clusters

to hear the experience of any readers of THE GARDEN who know the true *L. pomponium*.
Edge Hall, Malpas. C. WOLLEY DOD.

LITHOSPERMUM PROSTRATUM.

ON page 99, "S. G. R." gives much information to those who may not have been successful with this beautiful hardy plant, with the greater portion of which I agree; but I notice that your correspondent finds it thrives best on a raised position. No doubt this is so where the situation is low and the soil heavy, but in some soils it thrives grandly on the level. In proof of this, I may say that when in North Hants, where the soil is light and sandy, with a subsoil of either gravel or sand, it grew amazingly. Like "S. G. R." we started with fine healthy plants, and from the same source. All the help we gave was simply putting in large stones in the soil round the plant, and allowing them to rise somewhat above the soil, on which they were soon established.

We grew many plants in this way on the margin of a long hardy plant border, and I shall never forget the eight these made beside *Saponaria ocyroides*, some of the mossy *Phloxes*, such as *Vivid*, *Nelsoni*, and many others, with fine groups of *Aubrietia Hendersoni* and other sorts, and close by the Prophet Flower did splendidly. Most of these patches were from 1 foot to 3 feet across, and were growing on the level in the natural soil.

J. CROOK.

HELIOPSIS SCABRA AND ITS VARIETY PITCHERIANA.

Of the half dozen or so species of *Heliopsis* known to botanists there are few so much grown in gardens as the pretty and useful *H. scabra*, at one time known as *H. levis* var. *scabra*, but now recognised as a distinct species. It is a useful border plant, growing from 2 feet to 4 feet or 5 feet high, and giving a number of flowers 2 inches or more in diameter. These are bright yellow, and are produced on stiff, stout stems, the leaves being rough to the touch. In its ordinary habitats in the United States and Canada it affects principally dry soils and positions, so that it is found well suited here for the drier parts of the garden. Its native name of Rough Ox-eye or Rough False Sunflower is descriptive of the general appearance of the plant and its flowers. The variety called *H. scabra pitcheriana* is even to be preferred to the type on account of the richer colouring of its flowers, these being a deep orange. It is quite as vigorous and free flowering as the type, so that it may be planted in preference to it for the sake of its less common colouring at the season when it blooms—from June to September. S. ARNOTT.

THE TULIPAS.

(Continued from page 93.)

II.—MAY-FLOWERING OR COTTAGE TULIPS.

THIS splendid race has of late years become deservedly popular, quite surpassing the early bedding Tulips in general usefulness, whilst many possess delightfully soft and refined colour shades found in no other group. They are mainly strong, vigorous plants, generally much taller than the early flowering group, and, though quite as useful for bedding where their later season of flowering does not hinder the summer bedding arrangements, they are really better adapted for the hardy border. They may, as a rule, be forced easily, but they cannot be depended upon unless given plenty of root run, and their time of flowering is a little irregular—a few laggards occur in nearly every planting—a desirable feature in a border plant, as the season is thereby prolonged.

Recent additions to this group are a great gain, and one hears of still better things awaiting introduction, and others in the process of development. There are hundreds of them already, and selection is imperative if their

high standard is to be maintained, discarding those of weakly growth, poor colouring, or whose petals "weather" badly. A few of the old types still hold their own against the new comers, and they have been included in the following list of twenty, selected as representative of every known type, colour, and form, and which possess many good qualities from the gardener's point of view.

They owe their name to the fact that they were first grown in the old British cottage gardens, they represent no distinct type, but embrace self-coloured and "broken" Tulips in all late-flowering sections, varying greatly in size, shape, and stature, and it is this diversity of form that renders the group so fascinating and popular. Essentially English Tulips, their cultivation does not differ from the general race, and beyond that their vigorous constitution is best maintained by annual lifting and ripening there is nothing particular to record in this respect.

Beauty of America is a slender-growing plant 18 inches high, the flowers of which are goblet-shaped, pale yellow, changing with age to a silvery white with sulphur shading, and base a slightly darker stain of yellow. The outer petals reflex with age, and their tips are tinted green. Very pretty.

Blushing Bride (*Isabella*, *Shandon Bells*, *York and Lancaster*).—A stout plant 1 foot high, with massive petals 5 inches long, the margins of which are rolled inwards. Colour white, heavily flushed rose, and variously spotted and feathered rose throughout the flower, basal colouring blue, yellow, and white, in concentric rings, generally ill-defined; outer base pure white. A very variable plant, white or rose dominating in various specimens. A popular bedding Tulip.

Bouton d'Or (*Ida*, *Golden Beauty*, *lutea*, &c.).—A bold erect Tulip 2 feet high, with globular rich yellow flowers free from any basal stain. The anthers are black. In some soils a reddish feathering suffuses the outer basal half of the flower with age. A capital bedding Tulip, thrives well in grass for several years undisturbed, and considered the best yellow Tulip for long distance effect.

Cottage (*Cottage's Pink*).—A new comer, with strong stems 18 inches high, bearing pretty rose-coloured flowers, the petals of which are rounded, all equal, the three outer recurving; the three inner are hooded. Basal colouring a five-rayed star of greenish blue, resting on a yellow disc as large as a florin. A very pretty Tulip, coloured like a chestnut Hybrid Rose.

Fairie Queen.—A strong-stemmed plant 1½ feet to 2 feet high, the flowers of which are egg-shaped, 4 inches long, coloured a rosy heliotrope shading to old gold at the margins. Basal colouring ruddy brown. A fine Tulip of excellent form and distinct colouring, but slightly evil-smelling when cut and placed in a warm atmosphere.

Gala Beauty (*Columbus*).—Pretty pointed flowers 4 inches long on stems 18 inches high, coloured crimson, variously and heavily striped, flaked, and edged yellow, often quite yellow with a few crimson flakes, or vice versa. The surfaces of the petals are very lustrous, and it is at all times a brilliant Tulip.

Gold Flake.—A strong-growing plant of *T. macrospeila* form. Flowers 4 inches to 5 inches long, the petals of which are very broad, lustrous, and coloured an orange red, variously flaked with yellow and dark crimson. The basal colouring is yellow and the anthers are black. It is probably derived from *T. macrospeila*, with which it agrees in its ground colouring and sweet fragrance.

Inglescombe Scarlet.—Stems very strong, often two to three flowered. Flowers shaped like Yellow Gem, but not so markedly hooded. Petals somewhat twisted, rich glowing scarlet in colour, heightened by the well-defined glowing black centre. Their surfaces are very lustrous, and they often measure 5 inches to 6 inches long. A magnificent Tulip of recent introduction, and a great advance on anything so far obtained. Its freedom in flowering and strong, vigorous habit are excellent features.

Innovation.—Very strong plant, but the stems are too slender to hold the flower erect in all instances. Flowers exceedingly large and well developed, 6 inches long, 10 inches across, coloured a rich creamy tint, shading to a white marginal colouring, flaked with rosy carmine always near the tips, and occasionally elsewhere. A monster Tulip with many good qualities, but it requires to be well grown in order to strengthen its stem.

La Candeur (*Parisian White*, *Snowdon*).—Neat habited plant 18 inches high. The flowers are egg-shaped in a bud state, 3 inches long, pure white throughout, with rounded petals, which become margined with pink as they age. A neat bedding Tulip.

La Merveille.—An elegant Tulip 18 inches high, stem is somewhat slender but quite rigid under good cultivation. Flowers 4 inches to 5 inches long, outer petals pointed, the inner more rounded, colour a rich reddish apricot with orange shading. The base of the flower is stained with yellow, with a darker dividing zone. A very beautiful Tulip, excellent as a bedder, wonderfully rich in colour under all conditions of light, and a flower one can recommend for the decoration of apartments. Its variegated sport is a hideous plant in comparison.

Leghorn Bonnet.—A fine new Tulip, with stout stems 1½ feet high, bearing distinctly three-sided flowers coloured straw yellow, brighter on the inside, distinctly inflated in a bud state and tinged with green when they first open. The petals are pointed, very broad, and of stout weather-resisting texture. Their shape, size, and colouring are all that can be desired, and one can recommend this plant as a really good novelty.

Maid of Honour.—A pretty slender-growing Tulip allied to *Beauty of America*. The flowers are of medium size, coloured sulphur-yellow, slightly feathered carmine at the margins and near the base. The petals are rounded, the outer reflexing, the inner hooded, and their bases are slightly stained pure yellow. Remarkable for its soft delicate colouring and faint carmine tracery.

Orange King.—A bold Tulip of great strength. Petals rounded, very stout and broad, coloured a soft orange vermillion shading to scarlet, delicately toned towards the margins. Their surfaces are very lustrous. The shape of the flower is that of Gold Flake, a deep, long-tubed, inflated funnel when closed. The basal colouring is golden yellow, lined with a clear black tracery, very fragrant.

Parisian Yellow.—Still the best of the yellow Tulips. Stems 1½ feet high, bearing long petalled flowers 5 inches deep, coloured pure yellow, brighter internally, heightened by a dark green basal stain. The petals are hooded not reflexing, and their margins are turned inwards at all stages.

Picotee (*Maiden's Blush*, *La Vierge*).—An old garden Tulip of general excellence. Flowers pointed, reflexing, of stout substance, 4 inches to 5 inches long, white, tipped with green, edged with pink, gradually becoming suffused with pink as the flower ages. A spurious plant with a dark brown basal stain is in commerce under

this name. The true plant should have a slight yellow stain.

Striped Beauty (Summer Beauty).—A grand "broken" Tulip, 1½ feet high, the petals of which are white, flamed with grey, crimson, and blue, of great depth and substance and unusual brilliancy. It is a singular-looking flower, the colouring being in the form of narrow radiating lines, each colour blending well.

Sweet Nancy (Narbonensis alba).—A pretty white-flowered Tulip, the leaves of which are flat, ascending and clasping the stems. It grows 16 inches high, and bears egg-shaped flowers, the petals of which are pink tipped, edged with faint lines of pink near the base. The basal colouring is in the form of a black ring, often very slight. An excellent bedding Tulip of regular height.

The Fawn.—A strong-growing, stout-stemmed plant, 2 feet high, bearing one or two fawn-coloured flowers flushed with apricot on the outside and edged with old gold. They are egg-shaped, 4 inches long, and coloured greenish at the base. The outer colouring is softer and more refined than the inner. A very choice Tulip, distinct in shape and colouring. All it lacks is a pleasing fragrance.

Yellow Gem.—Stems 1½ feet to 2 feet long, leaves very broad, quite 1 foot long, and deeply channelled. Flowers 4 inches to 5 inches long, contracted near the middle, hooded at the tips, coloured a soft shade of sulphur-yellow throughout, save the slightly darker basal stain. A grand Tulip, with all the good attributes of *T. fulgens*. It requires good cultivation to develop substance of petal.

G. B. MALLETT.

(To be continued.)

THE FLOWER GARDEN.

THE FAMOUS FUCHSIA WALK AT PENRHYN, NORTH WALES.

ONE of the most beautiful features in the gardens of Lord Penrhyn, Penrhyn Castle, Carnarvonshire, is the Fuchsia walk. Let the reader gaze for a moment at the long colonnade, with its series of arches, through the cool shadow into the sunlight at the far end. Let him try to read into the picture the tender green of the foliage, the graceful droop of the scarlet and purple tassels. He will then realise that at Penrhyn such use is made of the noble tree Fuchsias as is, so far as we are aware, made nowhere else. Devon or Cornwall may show something like it, but North Wales certainly does not.

BORDER CARNATIONS.

It is useful to look round each season before layering the Carnations for another year, and note how they have withstood the vagaries of climate. For rude health and surpassing vigour there is, of course, nothing like a bed of seedlings, but even in these days of seedlings, so marvellously true to strain, there are old favourites that we cannot do without. In looking over a town garden where Carnations are the mainstay of August I note how entirely different is the display this year to previous years. The petals of scarlet Carnations seem the most solid, while the soft pinks and roses have all rotted. Some whites stand to perfection, as do the white ground Picotees. Yellow ground Picotees also stand extremely well. Most dark varieties suffer in the petal; even the hardy cloves have many petals disfigured, while the orange and buff shades are utterly and entirely spoilt. Some pure yellows stand the wet quite well. The list runs thus: All

the scarlets stand rain; of whites, some suffer very much, while Trojan and White Swan are quite proof against days of storm. No soft pink has stood satisfactorily, but rose and deeper shades stand well. Of the very deep maroons, Mephisto stands out as impervious to wet.

Picotees stand the rain best of all, particularly the white grounds. Yellow ground Picotees stand well, but vary considerably; Goldfinder, Mrs. Tremayne, Lady St. Oswald, and Ladas are all above reproach in a wet season. Of yellows, Miss Audrey Campbell and Pandeli Ralli are conspicuous by their fine petals and perfect blooms. There are many failures, however, and such prime favourites as Midas and all the orange and buff shades are a practical failure. Belladonna, which two years ago was the pride of the garden, has hardly half-a-dozen blooms fit for cutting where some hundreds would have been gathered. I hope others will say what has stood well with them on a heavy soil, for, of course, on all light soils the rain has only helped, not hindered, the blooming; while in hot and dry years the strong soils have the monopoly, one might say, of this most valuable border flower. E. H. WOODALL.

HERBACEOUS PHLOXES.

PERHAPS one of the most seasonable of hardy flowers at the moment is the herbaceous Phlox, a group of showy perennials that if well grown should rank among the best of subjects in the open garden during August and September. Now and again we hear the remark that it has or has not "been a good year for Phloxes," a remark, doubtless, intended to bear some relation to the weather of the few preceding weeks. As this group of Phlox is singularly benefited by moisture—and root moisture is an essential to the finest flower development—it follows that the present year has been favourable to good growth and large heads of bloom; and, indeed, this is very true. But while in June and early July this fine border plant had its fill of moisture, there may be instances of dry sandy soils that require attention in this detail



A FUCHSIA WALK IN LORD PENRHYN'S GARDEN, PENRHYN CASTLE, NORTH WALES

now. At no time is root moisture more necessary than when the flower-heads and the flowers, too, are in course of formation, and this abundant moisture is just as much a necessity in the expanding of the flowers a little later. Hot and dry sandy soils, or those again much drained by gravel and sand, are the first to dry up with a few days hot sun, so that a mulching of decayed or partly decayed manure may be added with advantage.

Of so much importance are these items at this time, and especially when the flower-heads are required for exhibition, that I formerly flooded the specimen beds of Phloxes three times weekly, and for isolated clumps in the border where these gay flowers are grown it repays just as much to supply the plants abundantly either with water and a mulch or with liquid manure. Even on the more holding soils, where this root moisture is less essential, the plants are immensely improved by liberal applications of it from time to time. When this fondness of the Phlox for moisture is more

obtain a good hold. This, followed by watering, will ensure splendid heads of bloom.

While this section of the Phlox has for years past reached a high state of perfection new sorts are always appearing. The following are among recent novelties:—

Atala.—China rose, with white star-like centre, well-formed flower, and abundant bloomer.

Fille d'Ève.—A creamy white variety with deeper coloured centre, flowers very large, habit dwarf and good.

Pandora.—Carmine-lake, with starry white centre; a showy Phlox.

Mozart.—Ground colour salmon-rose, with large blood-crimson centre; a most effective plant, with handsome flower-heads.

Zouave.—Magenta with carmine, with great flowers nearly 2 inches across; a fine showy variety.

Balzac.—Rose-lilac, suffused slaty blue, and purplish centre.



A GROVE OF HORNBEAM.

fully realised we shall see good Phloxes in most seasons.

Some declare the Phlox to be all but worn out three years from planting, but as a set-off against this I may state that I have a long line of my fine white Phlox Mrs. E. H. Jenkins planted some seven years since producing heads of bloom far larger than those usually exhibited. Many of the clumps have from thirty to forty stems that will maintain a succession of flowers for weeks to come.

From this it will be seen that a generous cultivation may have more to do with complete success than the age of the plant. One important item too often overlooked is this: These Phloxes are great surface rooters, and unless these surface roots are catered for by mulching and by watering they are valueless.

Old beds or plantations may be mulched with soil and manure in equal parts, and bone-meal or blood manure may be added liberally also. This soil mulch, as, indeed, any mulch, is best if made quite firm, so that the roots may

Mr. Gladstone.—Delicate satiny rose, with brighter rose centre, very handsome in truss and showy in colour.

Papillon.—Practically a rayed flower, one-half of each petal being of a lilac-blue shade, the other ash-grey; a novelty.

Claude Joffroy.—Rosy violet, flowers very large. *Lumineux*.—The colour of the China Rose, the flowers very large and showy.

Sesostria.—Very handsome heads of royal purple flowers.

Julie Roussel.—Pure white, with rosy carmine eye; a noble panicle of handsome flowers.

To these may also be added such fine things as *Etna*, a very large flower of a lively scarlet-rose; and *Coquelicot*, fiery vermillion, with deeper centre. In the opposite extreme of pure whites I select *Sylphide*, *Fiancee*, *Albatre*, with Mrs. E. H. Jenkins already named, which I regard as one of the most effective of pure white Phloxes in cultivation to-day.

Hampton Hill.

E. H. J.

TREES AND SHRUBS.

GREEN ALLEYS AND GROVES.

WE have on more than one occasion described the beauty of green alleys and groves, and to avoid repetition refer our readers to THE GARDEN of October 20, 1900, page 315, in which the advantage of such features in the English garden are set forth, but this is the first opportunity we have had of showing the picturesqueness of a grove of the common Hornbeam. The illustration speaks for itself, and shows how beautiful a well-known tree is when made to form such a feature as is shown in the reproduction of a photograph kindly sent by Miss Willmott.

BUDDLEIA VARIABILIS.

BUDDLEIA VARIABILIS may be included among the most promising shrubs introduced from China in recent years, and in the less favoured parts of the British Isles it will probably rank among Buddleias next to the yellow-flowered *B. globosa* in merit. Of course, *Buddleia Colvillei* is finest of all, but it only thrives in the mildest counties. It is of a semi-herbaceous character and grows late into the autumn. In spring it shoots freely from the old wood, and during the summer makes growths 4 feet to 5 feet long. It is a vigorous plant and flowers abundantly. It varies in habit, and there are at Kew plants of quite a prostrate growth, whilst in others the branches are sturdy and arching or almost erect.

Our gardens are indebted for this shrub to the French missionary, M. l'Abbé Soulié, who sent seeds to France in 1893. From these seeds plants were raised that flowered and were exhibited the following year. The species was, however, named independently of these plants the same year by Mr. W. B. Hemsley, from dried material sent to the herbarium at Kew by Dr. Henry, who has found it in several parts of Central China, but the seeds from which the plants cultivated in Europe were raised came from Eastern Thibet.

This *Buddleia* ripens seed in plenty, and the plants are all the better if what is not required of this be removed as soon as the flowers are over. The species can also be increased by cuttings taken when the growths have got moderately firm. It appears to thrive best in a young state, and the stock ought to be renewed occasionally either by cuttings or seeds. As to soil, a good sandy loam is probably the best, and if, besides this, a sunny position can be provided, this *Buddleia* will prove a welcome addition to the rather scanty number of shrubs whose flowering time comes in late summer and early autumn.

THE ROSE GARDEN.

NOTES FROM A YORKSHIRE GARDEN—ROSES, 1903.

IN spite of early and late frosts Roses in this district (West Riding) have done very well as to blooming, although the leafage in some cases has been somewhat sparse. Probably our northerly latitude and usual late pruning gave us, for once in a while, an advantage over some of our southerly friends, who in most years are gathering Roses long before we poor northerners are able to do so. Be that as it may, we have had, and still have, some beautiful blooms, and in good quantity, and although there has been some mildew the majority of the Roses have grown sturdily, both in old and new beds.

Content six years ago to begin with H.P.'s, Teas and Hybrid Teas have been added in recent years, and have proved in every way a success; indeed, taking them all round, the H.T.'s perhaps hold the premier place in the Rose garden. The favourites include the well-known names of Caroline Testout, Marquise de Salisbury,

Liberty, Gräse an Teplitz, Mme. Abel Chatenay, Viscountess Folkestone, Killarney, Papa Gontier, Gustave Regis, and Camoens. The one stem of Camoens bears seventeen buds.

A Rose-bowl on my table holds blooms of Marquise of Salisbury, Gloire Lyonnaise, Billiard et Barre, and Mme. Chedane Guinoisseau, all so lovely on the tree and equally charming when cut. Amongst Teas the two last named are great favourites, and are closely followed by Marie van Houtte, Anna Olivier, Maman Cochet, White Maman Cochet, Enchantress, Mme. Lambard, and Dr. Grill. These are most satisfactory in every way, and surely the error that some people labour under in still thinking that Tea Roses will not grow in the north may soon be entirely a thing of the past.

In winter they were protected over the roots with Bracken, but the garden is situated very high up and a good deal exposed to the winds and frosts. The old friends amongst the H.P.'s, including Mrs. John Laing, Mme. G. Sharman Crawford, General Jacqueminot, Ulrich Brunner, and a dozen others, still charm by their richness of colour, and the majority of them also by their fragrance.

WALTER JESPER.

USES OF BRITISH PLANTS.

(Continued from page 152.)

XII.—CORNACEÆ.

CORNEL (*Cornus sanguinea*).—This is a hedge shrub with opposite leaves, corymbs of creamy white flowers, and black berries. The wood is hard, and was formerly used for cog-wheels, as well as for butchers' skewers and ramrods. It is one of the best woods for gunpowder. The fruit contains a good deal of oil, which might be utilised if necessary, as it is in France, for the manufacture of soap. The berries are not edible, and, as Parkinson observes, not even "fit for dogs," hence its name Dogwood, but it is a doubtful etymology, though Prickwood, as it is also called, is a more appropriate term, since skewers and wooden pins were made of it formerly.

CAPRIFOLIACEÆ.

Dane-wort (*Sambucus Ebulus*).—This herbaceous shrub is also called Dwarf Elder, and in the fourteenth century was known as Ebulus and Walwort. In the sixteenth century a synonym was Chameactis, derived from the Greek word; but the origin of Dane-wort, which appears in "Gerarde's Herball" (1597), is obscure. It was used for gout, fester, wounds, &c., in the fourteenth century, and was held in rather high repute, as every part of the plant is cathartic and emetic. The berries yield a violet dye.

Elder (*S. nigra*) is well known for its large scented corymbs of yellowish white flowers, purple berries (sometimes green when ripe), and leaves resembling those of the Ash tree. The flowers, which yield a volatile oil by distillation, are used in poultices, &c., and the berries make excellent wine, yet an infusion made from the leaves is fatal to insects, so that gardeners often use a strong infusion to preserve delicate plants from insects and caterpillars. In the fourteenth century the middle bark of the Eller* was used for dropsy.

RUBIACEÆ.

Yellow Bedstraw (*Galium verum*).—This plant can furnish a red dye like its ally, the Madder of the Continent (*Rubia tinctorum*). It has been cultivated for this purpose, but with little or no profit, as the roots are too small, though it has been used in the Hebrides for dyeing woollen stuffs red. The stems and leaves are described as yielding a good yellow dye used in Ireland. Another use of the plant resided in its property of acting like rennet in curdling milk, and is used in Gloucestershire for this purpose. It was called "cheese renning" in the sixteenth century, and Gerarde says (quoting from Matthioli, a famous commentator of Dioscorides) "the people of Thuscane do use it to turne their milke, that the

cheese which they make of sheepes and goates milke, might be the sweeter and more pleasant to taste. The people in Cheshire, especially about Namptwich, where the best cheese is made, do use it in their rennet, esteeming greatly of that cheese above other made without it." The name Galium is from the Greek *gala* (milk), probably in reference to its coagulating properties.

Cleavers (*G. Aperine*).—This plant is extremely common and well known for its little twin berries covered with hooked bristles, hence its name. It

for scalds and burns in the fourteenth century, under the names Heyryt, Gosgres, Cliure, and tongebledes, or as we should spell them, Goosegrass, Cleaver, and Tonguebleed, doubtless from its roughness due to incurved hooks all over the plant. Later uses were for colds, swellings, &c., the whole plant being rather astringent.

Wood-ruff (*Asperula odorata*) is remarkable for its sweet scent of Hay. The common name in the fourteenth century was Herb Water for Herb-Walter; and in French *Muge de boys*, Musk of the



BUDDLEIA VARIABILIS IN THE SOUTH-WEST. (See page 152).

is also called Goosegrass as a food for geese, being often collected for poultry. Horses and cattle will eat it with relish.

The seeds are described as being an excellent substitute for Coffee; but whether they contain the same peculiar alkaloid is not known, though both plants belong to the same family. It is said they are used for this purpose in Sweden. It is also remarkable that the custom of employing the stems as a sieve in the time of Dioscorides is still maintained in Sweden. It was used as an ointment

Woods, or Wuderove as early as the thirteenth century. Later it was spelt in a rhyme,

WOODDE-
ROWFFE.

It was much used in medicine in the Middle Ages; but without having any real virtues.

VALERIANEÆ.

Valerian (*Valeriana officinalis*) is a tall herbaceous plant, with leaves resembling those of the Ash and corymbs of pink flowers. It is retained in our

* Eller was the correct word, Elder is a later corruption.

Pharmacopœia as a nerve medicine, being antispasmodic. Its properties are due to a volatile oil in the roots. The scent has a remarkable attraction for cats and rats, these latter being caught by a bait of Valerian root.

Corn Salad (*Valerianella Olitoria*).—This little plant is found in Cornfields, &c., and is also called Lamb's Lettuce. It is a doubtful native, as it has been long cultivated, but superseded by other plants for salads. It is much more known on the Continent.

DIPSACEÆ.

Teasel (*Dipsacus sylvestris* var. *Fullonum*), the Fullers' Teasel.—The common wild Teasel is of no value, though supposed to have medicinal virtues in olden times, when the water caught in the little troughs between the opposite leaves was thought useful for bad eyesight. It was called *Virga pastoris* in the fourteenth century, and was an ingredient of "Save," a remedy for wounds. The Fullers' Teasel is a variety with recurved bracts on the heads of flowers. They are used for raising the nap on cloth. A number of heads were placed in a flat, brush-like frame, and drawn over the cloth. A later method is to fix them on a revolving cylinder. It is remarkable that no artificial invention has superseded the natural Teasel-head for this purpose. The stem, as of many other plants with opposite leaves, is subject to a curious torsion. Some years ago they were utilised for parasols, being very light, and sold under the name of "Eucalyptus" handles.

Devil's-bit Scabious (*Scabiosa succisa*) is a common meadow plant, which derives its name from the truncated subterranean rhizome. It is used on the Continent as supplying a yellow and green dye. It is a very astringent plant, and the rhizome has been employed as a material for tanning purposes.

GEORGE HENSLOW.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

HUMEAS AFFECTING PEACH TREES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your correspondent Mr. Harriss does good service to gardeners in bringing to their notice the injurious effects of Humeas elegans on Peach trees. When my attention was first directed to this matter I had some difficulty in believing that an old favourite of mine like the Humea could possibly injuriously affect a still greater favourite, the Peach, and consequently I was determined to bring the two together, with the result that in twenty-four hours the injurious effect of the Humeas was quite visible, and in forty-eight hours they had to be removed, the leaves in close proximity to the Humeas having the appearance of being severely scalded. As Mr. Harriss truly says, the browned patches eventually drop out, and leaves, too, that seemed unaffected, dropped in great numbers, leaving the branches without foliage, specimens of which, Mr. Editor, I enclose for your inspection. This recalled to my recollection a similar instance about fourteen years ago of Peach trees being severely affected by Humeas in exactly the same way, but at that time I never suspected the Humeas, but can well remember overhauling the borders trying to discover some noxious gases, to which I then attributed the result, but without success. Now I think it is time to minutely observe what effect Humeas may possibly have upon other and even more tender plants than the Peach. I am sorry to have to put a black mark upon the character of the Humea, the scent of which to me is most refreshing.

WILLIAM FYFE.

Lockinge Gardens, Wantage.

[Mr. Fyfe sent a bundle of shoots, which showed the great ravages caused by the Humea. This fact is of the greatest interest.—Ed.]

THE USELESSNESS OF MALMAISON CARNATIONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—At the risk of being taken to task "T." in THE GARDEN, August 15, draws attention to the uselessness of the Malmaison Carnations, and says that he fails to see the beauty of this sort unless size alone is a merit. Certainly size is a great point, and employers who are fond of Malmaisons want size. Ladies like to wear them as a bouquet or spray by day, because of their lasting quality and fragrance. It is difficult to get many choice flowers to last so well as the Malmaison Carnations. Some of the border varieties are very good grown in the same way, especially Cecilia. Catleyas, Odontoglossums, and many other Orchids are, of course, quite as much appreciated, but ladies will ask for these at night and the Malmaisons to wear by day. It is not always for the gardener to choose what shall be grown. He invariably has to fulfil the requirements of his employers. No doubt where sufficient house accommodation does not exist, and where the gardener is expected to grow plants equal to those of his neighbour with adequate accommodation, he would not regret to see them go out of fashion; but those who have accommodation, and are able to cultivate them well, are aiming at still higher possibilities. I think that the future of the Malmaison is a great one, and I know many ladies and gentlemen that have recently built houses to grow them. They are not likely to get so common as the border varieties, and what makes the Malmaison more popular, perhaps, is that it comes just as the London season is in full swing; and, as I have already said, the flower is so suitable for ladies to wear out of doors whilst walking or driving in the open carriage, as it will last throughout the day. Perhaps your correspondent "T." has not been successful with these plants or I am sure he would know the usefulness of them. They fill a great gap just after the great bulk of forcing material is exhausted, especially two and three year old plants, for furnishing the conservatory, grouping in the hall, and for table decoration. They are constantly admired when set up with taste. Some of the border varieties grown in pots in the shape of yellows, &c., to lend colour are often used in places for decorative purposes with the Malmaison, but the Malmaison stands out pre-eminent.

C. J. ELLIS.

NURSERY GARDENS.

MESSRS. JAMES CARTER AND CO.'S MORTLAKE TRIAL GROUNDS.

MOST fortunate in getting possession of the ground on which their various flower, vegetable, and other trials are conducted is this eminent metropolitan seed firm. It is placed just midway between Mortlake and Richmond Stations on the Windsor branch of the South-Western Railway, the front being the high road so greatly frequented which runs from Richmond to Putney, and the base touches the railway. Hence all its products are seen by tens of thousands of passers-by during the season. Our visit was unavoidably late, but there is always something to see in such trial grounds, and though the huge trial of some 1,000 rows and 250 varieties of Peas was practically over, there were many other things to command attention. The firm have a high reputation for their lawn grasses, and to that end keep very many patches of diverse grasses and mixtures suitable for lawns, tennis courts, cricket pitches, bowling greens, and golf greens. All of these, some fifty in number, of varying sizes, though many are about 2 yards square, were sown last autumn, as early as September, some in October, and others in March and April. Besides these testing patches there are two large ones—quite small lawns—specially kept to show the value of their grasses for golf greens. All are kept regularly mown, and, whilst some grasses or

mixtures please better than others, all seem so good as to leave little room for complaint. What are described as Invicta Mixtures, varying according to soils and requirements, give most perfect lawns, and the patches sown as late as the spring seem to be as good as those sown last autumn. The firm, however, strongly advise autumn sowing as best. They also advise using the seed with a liberal hand, even at the rate of some twelve bushels per acre. That anyone should endure the miseries of a weedy lawn when by first thoroughly cleansing the ground, then sowing with the best lawn grasses, they may have a lawn of the most perfect kind, passes comprehension. Those who want a real grass lawn should visit these trial grounds and see for themselves what good selected seed sowing can produce.

If Peas are over, there is furnished in the many pods put to dry off evidence of the care taken to secure fine stocks. The firm's experts go over every row or variety and mark the plants that are producing the best or finest pods. These alone when ripe are gathered, wintered, and then sown to create the improved stocks of the future. No other pods are gathered. That is one of the things which show what the seed trade is doing to supply the best class products to customers. Runner Beans are now fast coming to perfection, and the many stocks there represent the finest of strains. For the smooth-podded section we care little; they compare indifferently with the good old Scarlet or Dutch Runner sections for productiveness or for usefulness. How far we have got away from the old short-podded forms of Painted Lady and scarlet flowered the present stocks show. The firm have a strain which is designated Holborn Seedling. It gives seeds of diverse colours, and refuses to be selected; but no matter what the colour of the seed, it all produces the same fine, robust growth, abundant crops, and fine, long, handsome pods. A parti or red and white-flowered stock has been obtained, which resembles in bloom the old Painted Lady, but is far more prolific, as the pods are double the length of those of the original variety. Carter's Champion (white flowered) and Carter's Jubilee (red flowered), with Holborn Seedling and their Ne Plus Ultra all give grand crops and superb, long handsome pods.

Onions, both winter and spring sown, are just now a great feature. Of the latter there are some 250 rows, the stock throughout showing fine bulbing properties. Magnum Bonum, Carter's Long Keeping, Ailsa Craig, Bedfordshire Champion, Record, Holborn, a new late variety not yet named, and many others were of marked excellence. A huge breadth of Lettuces was over, with the exception of one curled Cabbage variety named Holborn Standard, that refused to run to seed at all. It is, indeed, a useful late keeping Lettuce.

There were eighty-five varieties of Beets, there were 600 rows, and a wonderful collection of stocks. Of them all, we liked none better than Carter's Perfection, an ideal garden Beet. Spring-sown Cabbages, too, were in huge quantity, but being sown late were not yet matured. There were various other vegetable stocks, but these suffice for reference. Of course flowers are grown in rich profusion. Specially noticeable was a big plantation of Hollyhocks from seed, carrying noble spikes of capital double flowers, varied in colours, white, yellow, pink, red, crimson, and other hues. A few of a new semi-double strain have beautifully fringed flowers.

The firm have long had a high reputation for their dwarf Tropæolums. Just now, in spite of the heavy rains, a big breadth of the self yellow Golden Queen Nasturtium is most attractive, and is a fine foil to a lesser breadth of Empress of India (rich crimson) close by. There are some beautiful dwarf Godetias, of which Rosamund (soft rose) is a beauty. Glorioso is an intense rich crimson, and Lady Satin Rose and Whitneyi are intermediate, yet most effective colours. Very fine indeed is the strain of what are termed "Butterfly" Gladioli. These seem to be intermediate between the grandavensis and Lemoinei sections, have large flowers, variously and brilliantly coloured. Summer, Intermediate, and Brömpton Stocks are grown in immense quantities.

Asters, all sown in the open ground, are later,

but will give a very fine show presently. So, too, will *Helichrysum*, *Marigolds*, and various other annuals. Amidst several rows of the Sweet Alyssum it was not possible to fail to notice one of the compact *Konigsmaritim compactum*, 3 inches high, forming dense cushions of white flowers, perhaps the most perfect summer carpet plant to be found. Pansies, *Polyanthuses*, and many other hardy things on trial are there also. Carnations from seed sown at this time last year have flowered, and still are flowering profusely, and carrying large double flowers. To see all that is growing in such trial grounds they need to be visited often.

CYPRIPEDIUM × ULTOR.

IN your issue of the 25th ult., page 69, you record my new hybrid, *Cypripedium × Ultor*, which gained an award of merit from the Orchid committee at their meeting on the 21st ult. I now have pleasure in enclosing you a photograph of the flower-spike of this plant, hoping you may consider it worthy of reproduction in your pages. I notice in your issue of February 3, 1900, an interesting article on *Cypripedium sanderianum* hybrids, in which an illustration of *Cypripedium × sanderiano-Curtisii* is given. Probably an illustration of *Cypripedium × Ultor* would prove interesting to your readers. I keep a very strict record of my hybridizing operations, and so am able to append full particulars of this hybrid. It is as follows: *C. lawrenceanum × C. sanderianum*, raised in the collection of Mr. Reginald Young (gardener, Thos. J. Poyntz), Sefton Park, Liverpool; crossed, May 29, 1894; seed sown, January 8, 1895; seedlings discovered, December 10, 1895; first flower open, July, 1903.

REGINALD YOUNG.

Linnet Lane, Sefton Park, Liverpool.

NOTES FROM SCOTLAND.

PHLOXES.

LATE white Phloxes are among the most valuable plants for northern gardens, and of these the newer dwarf forms are by no means so good as tall plants. The proper way is, no doubt, to plant all sections, the beauty of the dwarf *Tapis Blanc* being sufficient to ensure a liking for it in any garden. At the same time it is not such an effective plant as the now very old *Bridesmaid*, with its tall habit and loose spikes. There is another variety equally tall, very late in flowering, with starry flowers, but which I suppose is to be found in comparatively few gardens, that is one of our best late flowering plants. Each of these is so distinct that they might be regarded almost as different species. In selecting a white Phlox it is wise to choose those with yellow eyes, as then you get the full effect of the white. I was greatly taken with *Phlox Le Mahdi*, one of those purplish tinged forms that have been so prevalent of late years. Until this season it has been disappointing, however, but a group now in flower shows that wherever the fault formerly lay it was not in the variety itself. The plant is of medium height, with flowers to please the most fastidious. Plum-coloured Phloxes are also effective, but in these, as well as the rose-coloured section, one should see the flower before purchasing. Of

HARDY BORDER PLANTS

at present in flower, *Aconitum autumnale* is pre-eminent for its bold habit and for the grand effect made by its spikes of deep blue. It is commonly seen as an over-grown plant tied with severe formality to a support, but to have it in its best form, when it is a characteristic plant, strong two year old crowns should be planted together, not too thickly in large masses, intervening spaces being, however, filled with some dwarfier subject. I have seen this *Aconite* very fine in cold localities as late as October. Even in forward situations it

lasts until that month, but then the side shoots only are left, and of course much of its fascination rests in the glorious main spike. I wonder if

HYPERICUM ELATUM is a popular shrub. If not, it well deserves to be so. At present the bush is covered with its pretty yellow flowers, and in winter berries replace these. The plant, unfortunately, is apt to get cut down by severe frosts, and in cold districts it may on that account be somewhat too tender to prove reliable. *Hypericum* generally are a race that might be more cultivated. Even our native species are not without beauty, and masses and lines of *H. calycinum*, the Rose of Sharon of gardeners, are at present in rare beauty, and will continue so into winter. The rule is that this plant is dowdy and innocent of bloom. Give it, however, a good soil, plenty of sun—for though it lives in the shade it appreciates sunshine—and cut the stem back each year in March, the result will be satisfactory.

A SWEET PEA YEAR.

This may be said to be a Sweet Pea year, the individual flowers have been so large, and the colours so brilliant, fresh, and lasting. A decided forward step has, moreover, been effected in the varieties recently distributed, Lord Rosebery being by far the most beautiful of the many rose-coloured varieties.

Then in King Edward VII. we have a crimson of the ignea type that eclipses even *Salopian*. Of several whites Dorothy Eckford is easily first, though it must be confessed the flower is perhaps not so white as some others. Miss Willmott is, of course, still unsurpassed. Mrs. W. P. Wright has come mixed with me, but all the shades are good. For vase filling *Gracie Greenwood* is invaluable. I think that these varieties will hold a prominent position for some years to come. They may, indeed, be called forerunners of an advanced type. Not the least valuable trait in our present day Sweet Pea is the certain way it responds to what one might term treatment encumbered with difficulties. Mr. Maldom of Duns, a cold locality, wrote me last April that he had these Peas in bloom that were sown in pots the previous September. R. P. B.

GARDENING OF THE WEEK.

INDOOR GARDEN.

MALMAISON CARNATIONS.

BY this time the general stock will be passing out of flower, therefore select from those layered last season sufficient healthy plants for potting on into 8-inch and 9-inch pots. These plants will produce the finest flowers for spring and summer display next season. Select some sound not too light friable loam, but containing



CYPRIPEDIUM × ULTOR.

a good proportion of fibre such as is found only in very old pastures or commons. This must be broken up into pieces the size of a hen's egg, discarding all the fine particles. Also get leaf-soil from Oak or Beech leaves collected last winter. A little peat may be added should the loam be considered too heavy. Mix together in the proportion two parts loam, one of leaf-soil, and one of peat if required. An 8-inch potful of Bentley's Carnation manure and half the quantity of bone-meal to a barrow load of soil, together with sufficient coarse silver sand and broken charcoal to render the whole porous. Use clean pots well drained and 2 inches larger in diameter than those the plants are turned out of. Remove the old drainage and any loose soil there may be from the ball, and also carefully free the roots around the upper part of the ball with a pointed stick. Pot them firmly, and a little lower in the pot than they were before, using a blunt ended stick to get the soil firm enough. After potting place the plants in a cold house, keeping the doors and all ventilators open, except in very stormy weather, and should bright sun intervene a light shading will be beneficial for two or three weeks. The plants must be restaked, as it is desirable to keep every shoot possible. Syringe them morning and evening, but not too heavily, and keep them rather on the dry side at the root. The young layers recently potted up into 3-inch or 4-inch pots should now have plenty of air and room, and the strongest of them transferred to 6-inch or 7-inch pots. Keep all young plants close to the glass and ventilate the house or pit freely. The lights should be taken completely off the

latter in fine weather. See that each plant is supported by a stake 8 inches or 10 inches higher than the plant, and inure them gradually to the full sun.

CALLA ELLIOTIANA AND VARIETIES.

These should be exposed to all the sun and have moisture at the root gradually withheld with the view to thoroughly ripening them. A cold house or pit is much to be preferred to the ash border at this time of the year. As leaf growth is suspended report those that require it into a larger pot. A soil of sound loam two parts, leaf-soil and dry cow manure passed through a fine sieve half a part each, with sufficient coarse drift sand and charcoal to keep the soil open will make a good compost for them. One moderate watering after the repotting will be sufficient, and as the plants become quite dry and all the foliage has disappeared store them away for the winter, either under the stage of a cool house or in a dry shed, where the temperature will not frequently fall below 36° during winter.

PERSIAN CYCLAMENS.

Where a special strain of these is grown, collect the seeds as they ripen, and if sown as soon as gathered almost every seed will germinate under the most ordinary conditions.

Wendover.

J. JAKES.

FLOWER GARDEN.

ROSES.

THE heavy rains of late, followed by warm weather, have encouraged the late autumn blooms; in fact, both Hybrid Perpetuals and Teas are still almost as full of beauty as during the latter part of June. The change of weather from hot and dry to wet and cold for a period of two or three weeks brought on mildew in some places, but the new growths now forming are but little attacked. Those who wish to grow Roses without mildew should try the various forms of *Rosa rugosa*. None are more constant or certain to please than these; they are never troubled with mildew or red rust, two of the worst enemies of the garden. *R. wichuraiana* is also quite proof against mildew and rust. This charming little Rose is now at its best. The white single flowers are very pretty, and show up well against the dark green foliage; it is of a creeping habit, and deserves a place in every garden. Constant stirring of the soil should now be attended to, the recent heavy rains having beaten down the soil more firmly than many of us imagine, and it is at all times beneficial to keep the top soil loose and open to the atmospheric influence. Even where the plants are mulched between with short manure I would prefer them to be worked among as far as possible. Now is a good time to strike cuttings. After the rains, with the ground warm and genial, success is almost assured. The cuttings should be placed on the partially shaded side of a hedge or fence, using wood that is quite half ripe, and insert it three parts of its length. A light porous soil is best, but one of a heavy nature may be used. In this case a little sand or worn-out potting soil should be placed at the base of the cuttings. These will root at once, and be practically established before winter.

PHLOXES.

For mixed borders and shrubberies the perennial Phlox is very ornamental. The varieties are easily increased by divisions in the spring, and also by cuttings. Now is the best time to propagate these; they strike freely under a hand glass in sandy soil, and every point will root. Plants struck now will be ready for transplanting in early spring. The flowers and panicles of these are much finer from young plants, and when grown on light dry soil last much longer in bloom.

IBERIS (CANDYTURT).

For masses of white flowers in the spring garden the more compact-growing species are invaluable. They may be raised from seed or cuttings, the latter being the better way. The best time to take cuttings is when the young shoots of the season are nearly full grown and are becoming firm. These will strike freely under hand glasses or in a cold

frame, and will make good plants by the ensuing spring.

CAMPANULA PYRAMIDALIS.

This fine old plant, known as the Chimney Bell-flower, is now making a grand show in the open borders. Seed sown early in the spring will now give nice plants for potting up, the most suitable soil being a mixture of half sandy loam, quarter road grit, and a quarter leaf-mould. They suffer more from excessive moisture than from drought. During winter the pots should be plunged to their rims in cold ashes or dry leaves, and the rain warded off with old garden lights. The plants may be planted out by the end of May or early in June, and most of them will flower through August and September. Surplus plants should be put out in various positions among shrubs or on sheltered rookeries. In the latter position they are at home, as they like the elevation, and it is surprising how very little soil they manage to exist in.

T. B. FIELD.

Ashwellthorpe Gardens, Norwich.

FRUIT GARDEN.

VINES.

HOUSES of late Grapes intended for keeping through the winter will now require to be freely ventilated with gentle fire-heat in order to secure perfect ripening of the fruit and wood by the end of September. Reduce strong laterals where they have been allowed to run to a considerable length, but at the same time guard against exposing the bunches to the sun, as black Grapes always colour best under a canopy of good foliage. Black Morocco and Madresfield Court Muscat, two varieties liable to crack if heavily watered or allowed to hang in a damp stagnant atmosphere, should be heavily mulched to prevent the escape of moisture from the borders. An impression prevails with some growers that their success this season is entirely due to the extension of laterals, but several fine examples of this noble Grape have come under our notice. We have found upon enquiry that they have been grown upon the close stopping principle, a fair proof that the secret of success must be sought for in the management of the roots and the maintenance of a circulation of a dry warm air. Muscat Grapes now quite ripe must be closely watched, and if necessary slightly shaded with Haythorn's hexagon netting through the hottest part of the day. If the roots are in outside borders some covering should be held in readiness for throwing off heavy falls of rain. Gradually reduce the temperature of the house, using no more fire-heat than is absolutely necessary to prevent the berries damping, and ventilate freely on fine days. Follow up the relaying of the roots of early and midseason Vines before the leaves fall. Keep them well to the surface, and encourage the formation of new spongioles, by syringing and shutting up with sun-heat on fine afternoons. In cold, unfavourable situations Vines should always have the run of inside as well as outside borders, which should be well concreted and drained. Use new turf, with an admixture of old lime rubble, crushed bones, and burnt earth. Apply manure as a mulching in preference to mixing it with the compost, and aim at narrow borders well filled with roots, which can be easily protected or excited, as circumstances may dictate. Always bear in mind that Grapes invariably set and colour best when under control of the cultivator.

STRAWBERRIES.

By this time the latest plants will have become established in their fruiting pots, and the most important point will be to form plump ripe crowns with plenty of healthy roots under them for forcing up the flower-stems in spring. In low, damp situations, more favourable to the growth than to the ripening of the crowns, medium-sized pots, which quickly become filled with roots, answer best, and when this stage has been reached raise them on planks, dwarf walls, or platforms 1 foot or more above the ground, where by full exposure to light and air, and careful attention to watering with water which has been for some time exposed

to the influence of the atmosphere, the most backward plants may be made fit for storing in cold pits by the end of October. Keep the general stock of plants free from weeds and runners, and move them occasionally to prevent the crock roots from striking into the ground. Also keep a sharp look-out for worms, red spider, and mildew. The best remedy for the removal of the first is clear lime water, and the others may be destroyed by dipping the leaves of the plants in a mixture of sulphur and water. If very early forcing is contemplated, the first batch of *Vicomtesse Hélicarte* de Thury and *La Grosse Sucrée*, which is equally early and produces finer fruit, may now be taken to an open airy situation, where they can be partially plunged for the better protection of the roots, which should now be almost forcing the balls out of the small pots, as well as to economise time in watering. If not already done, get the surplus runners planted out on good ground conveniently situated for water. Mulch and encourage a vigorous growth, as these plants will give the earliest runners for next year's forcing, for main crops relying upon *Royal Sovereign* and the *Burghley* var. of *President*. If a spare cold pit can be planted out with *Sovereign* in rich soil the very finest possible fruit can be got at a minimum of cost and trouble just at the best time.

Madresfield Court.

W. CRUMP.

KITCHEN GARDEN.

CARDOONS.

THE plants will now be ready for banding and earthing up. Haybands answer as well as anything, and after making the end fast at the base of the plant, it should be wound round it and upwards until the desired length that it is intended to blanch is obtained. If the plants are not yet fully grown the work should be spread over two operations at intervals of a few days.

THINNING WINTER CROPS.

The importance of thinning out all seedling vegetables in good time cannot be over-estimated, and more especially is it necessary to perform this work as soon as the plants are large enough of those that are to stand the winter. The reason for this is obvious, viz., the hardier and more sturdy the plants are the better will they stand the winter. Unless the plants stand away from each other from the commencement of growth they will quickly become drawn and tender. Spinach, Turnips, and Onions should have early attention, as should seedlings that are raised in beds for transplanting, in order to prepare them before putting out into permanent quarters or to remain where they are sown.

WINTER SALADS.

In many establishments salads are in almost daily request throughout the year, and during the summer and early autumn months it is comparatively easy to maintain the supply, but not so in the dull short winter days. Preparations should be made for lifting and housing Lettuce and Endive so that they re-establish themselves before winter. Large plants are essential for this, and they should be lifted with good balls of soil, and transplanted or bedded 6 inches apart in rough frames or pits. Give one good watering at the roots when the work is completed, and no more will then be required for a considerable time. Leave the lights off on fine days and nights, replacing them only to throw off rains and sharp frosts. Now is a good time to insert cuttings of *Watercress* for providing strong plants for winter. If kept close and shaded roots are quickly emitted, when the points should be pinched out and the plants stood in a cool and shaded spot in the open until frosts occur, when remove them to a light position in pits or cool houses. Insert the cuttings thickly in 6-inch pots filled with common garden soil, taking care to leave plenty of room for abundant supplies of water.

POTATOES.

All the early and second early varieties should be lifted by now and stored before they become diseased. If it is intended to save seed some

suitable sized tubers should be left upon the ground until they become quite green and dry, when they should be laid out thinly in a cool shed for the winter. The edible tubers may be stored when quite dry in the Potato shed, and kept covered with sweet litter or old mats. The late sorts are looking remarkably well, especially that fine variety Up-to-date, which thrives well with us. The recent heavy rains are benefitting them considerably, and provided we now have some warmer weather the crop should be a good and heavy one.

Stoneleigh Abbey Gardens. H. T. MARTIN.

CHRYSANTHEMUMS.

THESE look remarkably well this season, and if we get a good sunny autumn to properly mature the wood very fine flowers may be expected, particularly of the Incurved section, as these flowers always develop more kindly when the wood is not over-ripened early in the year. At this date the whole of the buds in the large flowering section required for the early and middle part of November should be secured, also any varieties which are only just beginning to form and are required for the time mentioned should be placed in a cool, light, airy green or fruit house, raising the points of the growths as near the glass as possible. This will make quite ten days difference in the time of flowering. Mme. Carnot and its sports are always best when treated in this way, and finely-developed flowers can rarely be ensured in the early days of November unless treated as advised, and the same applies to many of the late-flowering Incurved, such as Princess Teck and its family. These, though seldom now seen in the high state of perfection as they were a few years ago, are invaluable to the exhibitor when at their best, as they constitute a true type of the Incurved, and their worth is sure to be taken into consideration by good judges.

RETARDING EARLY BUDS

is also of the utmost importance, as every endeavour should be made to have the collection specially grown in the pink of condition for the dates required, and much may be done to keep back the earlier set buds by placing the plants under temporary erected lights under a north wall, which should be made absolutely drip proof with a free circulation of air day and night. Avoid overcrowding the plants, and when in this position very little water will be required. In no case should any plants remain in the open when the buds show signs of expanding, as these rarely escape damage and perfect their flowers. Though this may not be noticeable for some time, it is almost certain to appear, even when the bloom is half expanded, especially among highly-fed plants.

FEEDING.

This must be done with extreme care. As I have before frequently pointed out, this is often indulged in to too great an extent, especially so immediately after the plants have been disbudded, without resulting in coarse, unrefined blooms. Thin out the plants if space will allow to at least 15 inches or 18 inches apart, and take care to ensure the safety of each growth and flower-bud against wind.

Thoroughly syringe the plants with tepid water about four o'clock in the afternoon, and on very hot, bright days two or three times during the day. This, with the heavy dews which we experience at this time of year, does much in assisting the buds to swell properly. Mildew is

likely to be very troublesome this year, and every precaution should be taken to check it on its first appearance, or, better still, to use the well-known remedy, plenty of sulphur, to prevent its appearance, puffing it well on the underside of the foliage. Should rust put in its appearance use every means to exterminate it. I know of nothing better than weak paraffin and water well mixed and constantly applied to prevent it gaining headway. I have tried this with the best possible results.

EARWIGS.

Trap earwigs and destroy them as previously advised, and also search for them with a lamp during evening. When Bamboo canes are used these should be cut off at a joint or thoroughly plugged, or these will form capital hiding places for them, from whence they come forth in the dark and do considerable mischief both to the bud and flower.

Pompons and late-flowering varieties grown in bush form must have their growths supported as they require it, neatly looping up each to one stout



THE NEW PEACH PEREGRINE. (Natural size.)
(Given an award of merit at the last meeting of the Royal Horticultural Society.
Shown by the raisers, Messrs. Rivers and Son, Sawbridgeworth.)

stick in the centre. Allow the plants plenty of room so that an abundance of sun and light can reach them. These will require plenty of manure water now that the pots are well filled with roots. The Pompons and Pompon Anemones will require a moderate amount of disbudding, which should be judiciously carried out.

E. BECKETT.
Aldenham House Gardens, Elstree, Herts.

THE FRUIT GARDEN.

PEACH PEREGRINE.

WE are pleased to illustrate this Peach by a drawing showing its natural size. As mentioned in THE GARDEN of last week, pages 126 and 142, it is a superb fruit raised by Messrs. Rivers and Son of Sawbridgeworth. The fruit is of beautiful colouring, a warm crimson, and the flavour is

delicious, rich, melting, and quite unlike the watery insipid quality of many of the American sorts. Peregrine is a Peach for all gardens. It bears abundantly, forces well, offers no great cultural difficulties, and is very hardy. Other Peaches possess all these virtues but one, and that is flavour. It is fruit of luscious quality that we desire, and no one can grumble that Peregrine has not this in its fulness.

LATE GOOSEBERRIES ON NORTH WALLS.

It is sometimes difficult to get the best results from a north wall. So far I have found that few trees give a better return than the Gooseberry, and as the tree can be grown readily with little labour I may say that it is most profitable. Many bare spaces could be given to the trees. I do not say that other fruits are less valuable, as much depends upon variety and space at command. The Gooseberry as a double cordon does well on a wall, and I have grown single cordons, but this adds to expense at the start. When the trees are given good soil and food at the start they soon cover a large space. Double cordons or trees trained with, say, half a dozen leaders soon fill a good space. Another point is that when the Gooseberry is grown on a wall it is much later, coming in when others are over. Even when ripe the fruit keeps a long time, and when grown in this way it is easy to protect the fruits with netting. There are other advantages, such as easy gathering of the fruits, which are usually much finer. Once the wall space is covered there is little trouble in pruning. Merely spur back the shoots and occasionally thin them out here and there.

A VALUABLE LATE CHERRY, LATE DUKE.

Cherries in the south and western counties have suffered so much by the bad weather experienced earlier in the season that any one variety that was saved from the wreck is doubly valuable. I never recollect Late Duke failing. Though it varies in adverse seasons, there is usually a fair crop when others fail. It does not possess the same good quality as May Duke, but if the fruit is allowed to hang on the trees when ripe it is by no means inferior; many like its slightly acid flavour, and for tarts and preserves it beats the Morello. The fruits are large, the tree grows well, and is less subject to canker than some dessert varieties. With us on a light soil it is most reliable, and even in seasons of

abundance Late Duke is always valued for its keeping properties, as the fruits hang well into September. Being so productive the tree is most useful when earlier sorts are over. I have also grown it as a bush or dwarf standard, but grown thus it is more difficult to preserve from birds. It is well worth wall space in any garden.

STRAWBERRY TRAFALGAR.

This late Strawberry crops enormously and is a good grower, and this is peculiar, as Messrs. Laxton, who sent out Trafalgar in 1900, give Latest of All and Frogmore Late Pine as the parents. With me Latest of All is by no means a strong grower, though the fruits are of excellent quality. They are conical in shape, and the flesh is firm, sweet, and luscious. This year we have a lot of plants on a north border, and it was so good that we shall grow it more largely in future. The plant makes a free and compact growth, and the foliage is large, smooth, and free from mildew. Owing to its heavy crop it should have more space, as the fruit trusses are large and very heavy, and in wet seasons the big leaves prevent the sun from

reaching the fruits if at all crowded. Trafalgar will, I think, prove one of the best of the newer introductions.

NECTARINE EARLY RIVERS AND THE SEASON.

This Nectarine has been so good of recent years that I am sorry to see that it has quite failed this season, and in a few instances whole trees have been killed by the severe weather of early May. It would be interesting to know how this valuable new Nectarine has behaved generally, as owing to its earliness, size, and flavour a large number of trees must have been planted in various parts of the country. Another point that should not be lost sight of is that both the Peach and Nectarine last autumn made a late growth, and the wood was softer than usual. Early in May the growth of these trees was very forward, and it is possible that earlier varieties felt the severe weather more acutely. Most of the early American Peaches were damaged badly, and the early Rivers suffered in the same way, being on a south-west wall and close to the water in a low lying garden. I intend to replant this variety again; it is too good to omit, and it may have suffered more than in other places, as we registered 17° of frost at the date named.

Middlesex.

G. WYTHES.

OUR PUBLIC GARDENS.

NOTES FROM HAMPTON COURT.

So far the heavy and all too frequent rains of the summer have had no ill effect on the famous and beautiful gardens here. The chief defect, if any, is seen in the lack of growth of a few tender plants used for carpeting, especially the variegated *Mesembryanthemum* and *Leucophyton Browni*, things that like ample warmth; but the soil is very porous, moisture soon percolates away, and generally there is little evidence of excessive rain. One special product of the rains is seen in the delightful greenness of the lawns, which, by persistent rolling and mowing, have now become very firm and smooth and clean. It is a singularly enjoyable feature which visitors highly appreciate, and constitutes for all the wealth of floral decoration on every hand a fitting framework or setting. Without showing painful tidiness every part is neat, clean, and all that a well-kept garden should be.

Water Lilies.—The newest feature in these gardens, and one that proves to be an immense attraction, is the many *Nymphaeas* which Mr. Gardiner has so effectively introduced into the large fountain basin. Always a very bold feature, the sixty or so of fine plants now growing and flowering constitute not only a great novelty but also a charming feature. The varieties are many, and of the best. As the roots become stronger each year the water will gradually become well furnished. The fountain pipes are far from being ornamental, and if these could be replaced in summer with a fine group of tall Palms, Ferns, or other appropriate foliage, and a score or so of similar but bushy plants in tubs were placed round on the broad bare stone margin, the effect then produced would be remarkably beautiful.

The Long Border.—Few gardens in the kingdom can show such a wealth of flowers on a side border as can now be seen on that long but all too narrow border which extends from the high road to the river front, excepting the palace façade. This is just now in great beauty, the bulk of its planting being in clumps or blocks of diverse plants, with climbers, Hollyhocks, Hemps, and various good tall plants at the back. Here hardy and tender plants combine with fine effect. Perennial Phloxes are huge clumps, and of rich colours. Hollyhocks are fine, and clean masses of *Lilium Harrisii*, *Bouvardia Humboldtii*, purple, rose, and scarlet *Salvias*, *Snappedragons*, *Pentstemons*, *Hydrangea paniculata*, *Gypsophilas*, *Kalosanthes*, *Aloucas*, white and red *Fuchsias*, also of zonal

Pelargoniums, *Chrysanthemum latifolium*, *Princess Henry*, a veritable giant *Marguerite*, *Gazania splendens*, blue *Veronicas*, white *Millefoils*, and many other things, all showing how to plant flower borders boldly.

Fuchsias and Heliotropes.—Of the *Fuchsias* planted in quantity here none is more effective than the old red and white single *Mme. Cornelissen*, introduced so many years ago, and still the best for bedding. It is here on plants 3 feet to 3½ feet in height literally a mass of bloom. Because of its freedom to flower it makes slow growth. Another very free flowering variety, chiefly in the form of semi-standards, is the red self *Marinka*; this on a floor of white *Bouvardias* is very effective. There are other varieties, but these two are the best. *Heliotrope President Garfield*, in tall, broad bushy plants full of bloom is pleasing intermixed with *Streptosolen Jamesoni*, plants that, by the by, want to be 12 inches taller than the *Heliotropes* are, though prettiest are tall plants of the white *Swainsonia*, which show with good effect above the dark *Heliotrope*. Other tall flowering plants largely used are *Plumbagos* and *Cannas*. Of the latter *President*

describe one tithe of the bedding. A visit reveals all, and is an education in floral decoration.

A. D.

SOCIETIES.

NATIONAL CARNATION AND PICOTEE NORTHERN DIVISION.

THIS exhibition was held in the large show house of the Manchester Royal Botanical and Horticultural Society on the 15th inst., and proved a great success, but unfortunately the weather being bad the attendance was very thin. The exhibits as a whole were fully up to the average, and in many cases exceptionally fine stands were put up.

For twelve bizarres and flakes, white grounds, dissimilar, Mr. T. Lord, Todmorden, secured the leading prize with fine blooms of J. S. Hedderly, Geo. Melville, Master Fred, Arline, Sportsman, Admiral Curzon, Gordon Lewis, Mrs. Shaw, Sarah Payne, Miss Constance Graham, and C. F. Thurston; Mr. J. W. Bentley, Stakehill, was second, his best blooms being Pandora, Arline, Sportsman, &c.; Mr. T. Etherington, Middleton, Junction, third.

For six varieties, Mr. J. Edwards, Moston, was first, having Pandora, J. D. Hextall, R. Houlgrave, Gordon Lewis, C. F. Thurston, and Sarah Payne; Mr. T. Brocklehurst, Marple, second, with Othello and G. Melville; Mr. W. Curbstone, Heaton Moor, third.

For twelve Picotees, white grounds, dissimilar, Mr. C. F.



A BED OF GALTANIA CANDICANS IN THE GARDENS AT HAMPTON COURT PALACE.

Faure, with its deep maroon foliage, is very striking intermixed with silver variegated *Abutilons*.

Begonias, &c.—The most brilliant colour bed is one near the river front. It is planted with *Begonia Lafayette*, the very best and most effective double ever introduced. Mr. Gardiner mentioned that whilst some complained that they could not make this variety grow he found no difficulty in doing so, as his superb plants attest. It has, in fact, been too much coddled in heat. The plants are thinly placed on a carpet of *Fuchsia Meteor*, whilst here and there are dotted plants, 20 inches to 24 inches in height, of the silvery *Fuchsia Gracilis*, small variegated *Abutilons*, and *Chlorophytums*. This glorious bed is worth going miles to see. Another bed of dark-coloured *Begonias*, planted thinly on a carpet of Sweet Alyssum, is dotted with fine balloon-shaped plants of the new *Kochia Scoparia*, that attract so much notice intermixed. Apricot and golden *Begonias* also are very effective. *Verbena Ellen Willmott* is used to produce a fine mass of pink colour. The old species, *Verbena venosa* and *Erinicoidea alba*, with tall plants of variegated *Veronica*, make a pretty combination. But it is impossible to

Thurston, Wolverhampton, first, with fresh flowers of W. H. Johnson, Pride of Leyton, Mrs. Holden, Ganymede, Little Phil, Mrs. Gorton, Mrs. Openshaw, Favourite, Brunette, Henry Kenyon, Thos. Williams, and Lady Louise; second, Mr. A. R. Brown, Birmingham; third, Mr. T. Lord.

For six varieties, Mr. J. Edwards was first; the Rev. C. Gottwalt, Drottwich, second; Mr. J. W. Bentley third.

For twelve selfs, not more than two flowers of one variety: First, Mr. A. R. Brown, with strong blooms of Avalanche, Bomba, Snowdrop, Teddy Galton, Cadet, Jenny Gough, Agnes Sarrill, Miss Alley, Snowdrift, Richard Dean, Germania, and Sir Bevy; second, Mr. C. F. Thurston, with Isinglass, Orpheus, and Miss Eric Hambro; third, Mr. T. Lord.

For six varieties: First, the Rev. C. Gottwalt, with fine flowers; second, Mr. W. Curbstone; third, Mr. D. Walker.

For twelve fancy or yellow ground Carnations of 2000s, not more than two flowers of one variety: First, Mr. C. F. Thurston, with a grand lot; second, Mr. A. R. Brown; third, Mr. T. Lord.

For six fancies: First, Mr. D. Walker, with H. Falkland, Gronow, Helios, Charles Martel, Paladin, and Erith; second, the Rev. C. Gottwalt; third, Mr. W. Curbstone.

Carnations, single blooms, scarlet bizarre: First and fifth, Mr. C. F. Thurston, with R. Houlgrave; second and third, Mr. J. Edwards, with Admiral Curzon and R. Houlgrave; fourth, Mr. C. F. Budenberg, with R. Houlgrave. Crimson bizarre: First and second, Mr. T. Lord, with Master Fred and J. T. Hedderly; third, Mr. J. Edwards, with C. F. Thurston; fourth, Mr. A. R. Brown, with J. S. Hedderly; fifth, Mr. C. F. Thurston with the same kind. Pink and purple bizarre: First and second, Mr. T. Lord, with Sarah Payne; third, Mr. J. Edwards, with the same kind; fourth and fifth, Mr. A. R. Brown, with George Rudd. Scarlet

Snake: Mr. C. F. Thurston; third and fourth, Mr. T. Lord, with Sportsman in each case; fifth, Mr. A. E. Brown, with Guardamans. **Rose snake:** First and second, Mr. C. F. Thurston, with Mrs. Rowan and Mr. T. Lord; third and fourth, Mr. T. Lord, with his namesake; fifth, Mr. J. Brocklehurst, the same variety. **Purple snake:** First, Mr. T. Lord; second and third, Mr. C. F. Thurston; fourth, Mr. W. Carstone, all staging Gordon Lewis; fifth, Mr. A. E. Brown, with Gordian Melville.

PICOTEES.

For single blooms, heavy red edge: First, Mr. T. Lord, with John Smith; second and fourth, Mr. A. R. Brown, with Brunette and Beatie; third, Mr. C. F. Thurston, with Brunette; fifth, Mr. J. Edwards, with Mrs. C. H. Hardman. **Light red edge:** First and third, Mr. C. F. Thurston, with Mrs. Gorton and Thomas Williams; second, Rev. C. Gottwaltz, with Thomas Williams; fourth and fifth, Mr. E. Kenyon, with Mrs. Gorton and Thomas Williams. **Heavy purple edge:** First and fourth, Mr. J. Edwards, with Mrs. Openshaw; second, Mr. C. F. Thurston, with the same kind; third, Mr. E. Kenyon, with Muriel; fifth, Mr. A. R. Brown, with Fanny Fett. **Light purple edge:** First and fifth, Mr. A. R. Brown, with Pride of Leyton and Myra; second and fourth, the Rev. C. Gottwaltz, the same varieties; third, Mr. C. F. Thurston, with Pride of Leyton. **Heavy rose, scarlet, or salmon edge:** First, Mr. A. R. Brown, with Mrs. Payne; second, the Rev. C. Gottwaltz, with Louie; third and fourth, Mr. E. Kenyon, with Mrs. Holden; fifth, Mr. T. Lord, with Campana. **Light rose, scarlet, or salmon edge:** First and fifth, Mr. A. R. Brown, with Lucy; second and fourth, Mr. T. Lord, with Fortrose and Favourite; third, Mr. C. F. Thurston, with Nellie.

PREMIER BLOOMS.

Picotee: Mr. A. R. Brown, with a charming white ground purple edge Myra. **Carnation:** Mr. J. Edwards, with J. D. Marshall, crimson bizarre.

CERTIFICATES.

The following awards were made: The Rev. C. Gottwaltz for Myra, as above, and for Lucy, a light scarlet-edged Picotee. Mr. B. Simmonite, Sheffield, for Aurora, a heavy edged variety.

The courteous hon. secretary and treasurer, Mr. W. Prosser, carried out the details in the most satisfactory manner.

CARDIFF GARDENERS' ASSOCIATION.

ANNUAL OUTING.

The annual outing of members took place on Monday, the 18th inst., when a party of nearly fifty journeyed to The Hendre, Monmouth, the beautiful residence of Lord Llangatlock. Leaving Cardiff in saloon carriages at 8.30, the party reached Abergavenny at 11.10, where a start was made for the Swan Hotel. At 12 noon a splendid dinner was served. Mr. F. G. Treseder, F.R.H.S., N.D.S., occupied the chair. The toast list was of a very brief nature, owing to the limited time.

The health of "The President" (J. Lynn Thomas, Esq., C.B., F.R.C.S., J.P.) was proposed by Mr. H. R. Farmer, chairman of the association. Owing to the unavoidable absence of the president, Mr. Thomas Malpass, head gardener to that gentleman, responded. "The Cardiff Gardeners' Association" was proposed by Mr. C. Phelps, V.P., and responded to by Messrs. H. R. Farmer, T. Malpass, and John Jones. "The Visitors" was proposed by Mr. Thomas Chubb, and responded to by Mr. Roddy. "The Chairman" was proposed by Mr. W. J. Prosser and responded to by Mr. F. G. Treseder.

After the party had been photographed they proceeded in buses to The Hendre, which was reached after a little over two hours' drive through the beautiful and picturesque valley of the Usk. Mr. Thomas Coomber, F.R.H.S., head gardener to his lordship, met the members at the entrance and conducted them over the gardens, where, as usual, everything looked in perfect order. Of the outside crops, Gooseberries and Currants were in abundance, but as Mr. Coomber had told many of the members at our late show, acting as one of the judges there, that he had neither Apples nor Pears. And true it appeared that he must have suffered very severely by the disastrous hailstorms during the spring when the trees were in blossom. The lawns and rockeries were beautiful. By special request the members were photographed in front of the mansion. Here Mr. Coomber introduced the party to the housekeeper, who very courteously showed them the various rooms full of costly works of art.

Tea (which was very generously provided by his lordship) was now served, and thoroughly appreciated after the delightful ramble though a most bracing air. Mr. H. R. Farmer moved a very hearty vote of thanks to the Right Hon. Lord Llangatlock. In the absence of his lordship, Mr. Coomber briefly responded. Mr. J. J. Graham moved a hearty vote of thanks to Mr. Coomber, who, he said, the members felt deeply indebted to, as he had done all that was possible to make the day what it really was—a happy one. Mr. R. Mayne seconded. Mr. Coomber briefly thanked the members for their kind expressions.

The buses were now ready to convey the members back to Abergavenny, thence to the station. Cardiff was reached at 10 p.m. The party unanimously thanked the hon. secretary, who had charge of the arrangements.

TROWBRIDGE HORTICULTURAL SOCIETY.

ONE of the best-known exhibitions in the West of England is that held at Trowbridge, Wiltshire, whose staple industry is the weaving of woollen cloths. Fifty-four years ago the Trowbridge Horticultural Society was formed, and it has held an exhibition annually since. One of the leading commercial families is that of the Stancombs, and a few years ago when Mr. William Stancomb, who was the president of the society, died, he left by will to the society, being lord of the manor, a spacious field in the town,

adjoining the Great Western Railway Station, for the use of the society, conditionally upon a flower show being held at least once in three years, the trustees of the ground being the magistrates for the borough. The annual show was held on the 19th inst., the weather being gloriously fine. There was a very large attendance, excursion trains coming in from many parts, and a sum of nearly £800 was taken at the gates. The town gives itself up to a day's enjoyment, the streets are prettily decorated, a high-class military band is engaged, with a display of fireworks at night.

Stove and greenhouse specimen plants are always well shown by local men, principally by Mr. H. Matthews, gardener to W. J. Mann, Esq., and by two local florists, Messrs. G. Tucker and H. Pocock. There are classes for twelve, six, and three, and some very fine Ericas find their way on to the exhibition stage, as well as Ixoras and Dipladenias, Ferns (finely shown in collections of twelve), tuberous-rooted Begonias (exceptionally fine), zonal Pelargoniums, Coleus, ornamental-foiled plants, and Orchids are always fine features. The glory of Trowbridge is its specimen Fuchsias. The veteran Fuchsia raiser, James Lye, who was for years the champion grower and exhibitor of these plants, was among those who set the fashion of Fuchsia culture in Trowbridge, and several of his disciples follow in his wake. The Trowbridge specimen plants are in 10-inch or 12-inch pots. They are from two to five years in age, 7 feet and 8 feet in height, the branches tied in to some extent so as to economise space in the vans in which they are conveyed, sometimes long distances, for the height of the plants precludes the possibility of their being sent by rail, the foliage finely developed, feathers down over the rim of the pot, hiding it from view, and they are liberally sheathed in blossom. James Lye used to put his plants in the open in May with a slight awning over them to ward off tropical rains, and in this way they were finished off for the exhibition tents, with the exception of Bath and Chippenham, flower shows within easy distance of the centres of cultivation. No such plants are to be seen elsewhere. They are superb examples of cultural skill. The two leading growers in the Trowbridge district are George Tucker and Henry Pocock, and there are two classes for specimens, one for six and one for four. On this occasion Mr. Pocock had the best six, and Mr. G. Tucker the best four. But fine as the Fuchsias were, they lacked the finish we have seen in previous years, owing to the sunless summer. Some of the best exhibition varieties with dark flowers are Doel's Favourite, a free growing and very free blooming dark variety raised some forty years ago; Brilliant, Thomas King, Mr. H. Roberts, Final, and Charming (Lye), the last one of the very best exhibition and decorative Fuchsias yet raised. Light varieties: Lye's Favourite, Lustre, Western Beauty, an extra fine variety, Arabella, and Beauty of Trowbridge.

Of cut flowers Roses were very good, a most attractive and instructive feature being the class for twelve bunches of garden Roses, the prizes going to the following in the order of their names, viz., Messrs. George Cooling and Son, J. Mattock, and Townsend and Son. Dahlias of all types were very good—show, fancy, single, Pompon, and Cactus—several of the leading trade growers competing. Among the Cactus blooms Winsome, a new white of last year, was in very fine character. There were very fine bunches of hardy perennials, while collections of annuals, also in bunches, were delightful. Gladioli, Asters, Carnations, Picotees, Phlox Drummondii, and Sweet Peas were great attractions. Wild flowers, correctly named and in good variety, were also shown, and pretty floral decorations.

Fruit was well shown. Among the dessert Apples Beauty of Bath was remarkably good, and is one of our very best early Apples. Worcester Pearmain and Lady Sudeley were also in good character. The best kitchen Apples were Warner's King, Peasgood's Nonsuch, and Lord Suffield.

Vegetables were very good, and especially so from working men grown in the allotment gardens about Trowbridge. The soil is suitable to the production of clean, bright specimens.

ENGLISH ARBORICULTURAL SOCIETY.

The members of the above society recently visited the establishment of Messrs. Sutton and Sons at Reading. They were received by Mr. Martin H. F. Sutton, and shown over the firm's offices and warehouses, in which they appeared to be much interested. Later in the morning they were conducted to Messrs. Sutton's trial grounds, where they inspected the many thousands of trials of flowers, vegetables, &c., afterwards returning to the firm's offices, where they were again received by the members of the firm, by whom they were entertained to lunch in their private hall. Mr. Martin John Sutton presided, supported by Mr. George Marshall (president of the society), Major F. W. Beadon, Mr. M. H. F. Sutton, Mr. B. Cowan, and Mr. E. Davidson (assistant secretary), the company numbering in all about sixty. The chairman gave the toast of "The King, the Queen, and the Royal Family," mentioning that no man, probably, in the higher walks of life had planted more trees than his Majesty, either as King or as Prince of Wales. The other day the King planted a tree on that wide expanse of treeless turf known as Park Royal, and thus gave it some better claim to its title.

Mr. Sutton next proposed "The English Arboricultural Society," coupled with the name of its president, Mr. Marshall. He expressed the great pleasure which he and the other members of the firm—his brothers, who were unavoidably absent, and his son, who was present—had in welcoming them there that day. He explained the circumstances which made the luncheon somewhat of an impromptu character, and prevented all the members of the firm being there, but assured his guests that no association could be welcomed more warmly than that society.

Mr. George Marshall, in returning thanks, said they had all drunk their own healths very enthusiastically. They had been treated, even at short notice, with the greatest hospitality; what the hospitality would have been had the notice been longer he left them to imagine. He would now propose the health of Mr. Sutton and his son, and of every

member of that world-famed firm. They had received at their hands the greatest courtesy and kindness, had been shown over their huge establishment, and told how a business of that kind should be conducted.

Mr. Martin H. F. Sutton, responding, thanked the company for their kind references to his father, himself, and their firm, and said they appreciated the honour of the society's visit. He was glad to know they were interested in the firm's premises and business methods. If there was one sentence of Mr. Marshall's to which he might demur it was when he said the visitors had seen how the firm conducted their business, because it had taken them (Messrs. Sutton) a considerable number of years to learn it. He was pleased they had been able to see the trial grounds at a season when there are more flowers in bloom than at any other time of the year.

* * The reports of the Brighton and other shows are left over until next week.

LAW.

COVENT GARDEN ARBITRATION CASE.

In the Westminster High Bailiff's Court, on the 12th inst., Mr. John Troutbeck and a special jury had before them the case of Wyld and Robins v. the Great Northern, Piccadilly, and Brompton Railway Company, which was a claim for compensation for the compulsory acquisition of the premises, 19, James Street, Covent Garden, required for the purposes of the new Covent Garden station. Mr. Edward Boyle, K.C., and Mr. Attenborough appeared for the claimants; and Mr. Roskill, K.C., and Mr. Disney represented the promoters. Mr. Boyle said that his clients were market gardeners, and held the premises on a lease, of which thirteen years were unexpired, at a rental of £150 per annum. Covent Garden Market belonged to the Duke of Bedford, who exacted a toll varying from 1d. to 4d. on each package sent in. This property, however, was free of toll, which often amounted to more than the rent. The taking of these premises in 1897 increased the net profits from £1,000 or so a year to an average of £3,537. Their claim was for £9,604. The witness went on to say that about a month or so after he took possession of the James Street premises tolls were demanded of him by the market superintendent, but he refused to pay. It was a common thing to see people in James Street paying the Duke's toll. Mr. Roskill said the Act dealing with the matter was 9 Geo. IV., sec. 113, and applied only to Covent Garden Market. Mr. Boyle said the Duke had it inserted in all his leases that tolls were to be paid. Mr. Robins said the occupiers of stands in Covent Garden Market were under great restrictions. If it rained, and he erected an awning to protect his valuable fruit, he would be ordered to take it down immediately, and he was not allowed to have the telephone; but he had that advantage in James Street, as well as a right to have a telegraphic address. If the railway company could find him other premises he would not ask for compensation. Mr. George Monro, managing director of George Monro, Limited, of 41, King Street, Covent Garden, said they occupied six shops in the market and five warehouses outside, paying the Duke's toll on all. This ranged from 1d. to 4d. The toll on half a bushel of Plums was 1d., whether the value was 1s. or 25s. The tolls more than doubled the rent in some cases. For the railway company Mr. Alexander R. Stenning said the claimants would be amply compensated if they were paid £2,738, and Mr. Douglas Young assessed the value at £2,300. The jury awarded the claimants £5,435.—*The Times*.

OBITUARY.

M. GODEFROY-LEBEUF.

THIS horticulturist, whose name was so well known, has just died at Paris at the age of fifty-one years. Brought up amongst plants at the Museum de Paris, he married the daughter of M. Lebeuf of Argenteuil, and commenced, like his father-in-law, the cultivation of Asparagus. Journeys in Cochin China, however, gave him a passion for introductions, especially for Orchids, which he imported with great ardour. He founded the paper called the *Orchidophile*, of which he was the most important—indeed, practically the only—editor, and which contributed greatly to popularise Orchids in France, and to make known the cultivation. He undertook, with the collaboration of Mr. N. E. Brown of Kew, the publication of a sumptuous work on Cypripediums, but this publication did not meet with the success it merited, and M. Godefroy-Lebeuf was obliged to abandon it. Later he published *Le Jardin*, which he kept for a number of years and then sold. In his later years M. Godefroy-Lebeuf was principally occupied in the introduction and exportation of colonial plants, to which his establishment of Batte-Montmartre was principally consecrated.—*Revue Horticole*.

MRS. LEWIS CASTLE.

We are very sorry to hear that Mr. Lewis Castle, the well-known manager of the Duke of Bedford's

fruit farm, has lost his wife at the early age of forty-two from paralysis, after twelve years of suffering. Mrs. Castle was well known to former Kewites, Mr. Castle having been for many years in the Royal Gardens, and was keenly interested in horticulture and botany, assisting her husband constantly in his horticultural work. A large family mourns her loss.

CHARLES JULES FREDERICK POSTH.

MANY in France and in this country will hear with regret of the death of this kindly horticulturist, a member of the great firm of Vilmorin of Paris. He died after a well-spent life in his seventieth year.

MR. WILLIAM HOUSLEY.

JUST as we are going to press we learn of the death of Mr. William Housley, secretary of the Sheffield Chrysanthemum Society. Mr. Housley was operated on for appendicitis about a month ago, and was going on well, but a relapse ensued, ending in his much-lamented death. Chrysanthemum growers in the North will miss this enthusiastic grower and worker. The funeral took place yesterday.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 90, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Names of Plants.—H. C. F.—1, *Cedrus atlantica*; 2, *Pinus exelsa*; 3, *Cedrus Deodara*; 4, *Erigeron pulchellus* (caucasicus); 5, probably a *Campanula*, but without leaves or flowers impossible to say; 6, *Lysimachia vulgaris*.—A. James.—1, *Lysimachia thyridiflora*; 2, *Veronica spicata*; 3, *V. a. variegata*; 4, *Agrostemma coronaria alba*. We wish everyone sent such good specimens.—T. F. Daniell.—1, *Phyllis capensis*; 2, *Anthemis tinctoria*; 3, *Geranium pratense* fl. pl.—W. T.—*Silene Armeria*.—V. E. W.—Please send a better specimen, the one sent was not complete enough for correct identification, as the flowers had quite faded.—F. P. K.—*Linaria bipartita alba*.—M. H. Casaret.—1, *Trachelium corniculatum*; 2, *Platyodon grandiflora* (Chinese Bell-flower).—S. G. R.—*Staphylea pinnata*.—G. C.—The leaves are probably those of a species of *Triplaris*, but it is impossible to name without more material. The white seeds are *Cotix Lachryma*, "Job's Tears." The red and black seeds are probably those of a species of *Rhynchosia*. The black seeds we could not identify.—H. J. A.—1, *Sedum spectabile*; 2, *Buddleia globosa*; 3, double variety of *Althea frutescens*; 4, *Corydalis lutea*.—J. M. S. P.—*Centaurea macrocephala*.—T. A. Sturge.—*Olearia Haastii*.—S. H. B.—*Ruscus aculeatus*.—J. R. D.—*Rubus phoenicolasus*.—C. B. M.—The name of the Musk Rose is *Eliza Werry*.

Wooden espaliers.—We have an oblong garden of about two acres, and it is proposed to put wooden espaliers behind the herbaceous borders on centre and principal cross walk. Could you or any of your readers describe one that has proved effective, material, height, distance apart of supports and lathing? Is there any book giving a variety of espaliers?—J. B.

[The simplest method, at once light, durable, and easily fixed, is that of galvanised iron standards with twisted wire passed through. Failing this, we could only suggest Oak posts with the wire above inserted through. The objection to wood laths is that lightness cannot be secured with durability. The posts or standards should be 9 feet apart, and these may be obtained of any of the iron-fencing manufacturers advertising in our columns. The catalogues of these firms would be your best guide. Perhaps some reader can help our correspondent.—ED.]

Alpine house.—Plunging materials (ANXIOUS). Any coarse, sharp sand, macadamised road grit, crushed granite or limestone, or old brick rubble roughly pulverised will make a good plunging material for the purpose. Cocoa fibre may be ranked next to these, but any of the above materials would answer better. We could have advised more fully if "Anxious" had stated whether the alpine were to be more or less permanently grown in the house or in frames, and brought into the house to flower. In the latter case, plunging might be dispensed with, but the

stands should be surfaced with gritty material in order that the pots may stand on a well-drained, though moist surface. All barred stands or shelves should be avoided.

Snappdragons, &c. (A. E. T.).—The earliness or lateness of these and the *Marquette* Carnations to flower depends upon the season, and many things are late this year. Both, however, may be sown in the last week in September and pricked off into boxes and placed into frames for the winter. The drawback to sowing the Carnations too much in advance of their flowering period is the possibility of the plants becoming wiry or stunted, when the flowering period would be much shortened. If you can command a slight warmth and treat the plants quite liberally, so that no check is experienced, a later time than we have given would be best. If, however, you have a contrary experience in your own locality, this should be the better guide. Both may be pricked off when 2 inches high and the point of the Snappdragon removed. These latter may be sown now at any time, inasmuch as repeated stopping of the shoots will render them large and bushy. It would be preferable to prick the young plants off in rich soil in the frame, and here the young plants would quickly develop. The frame will be the best winter place for them.

Lilium tigrinum Fortunel diseased (L. J.).—Yes, it is the Lily disease which has followed an injury by late frosts.

Rose buds failing to open (MRG.).—Although the sunless weather and excessive rainfall would account in part for these buds failing to expand, we cannot help thinking that you have overdone the plants with manure. Newly planted Roses that had the beds well prepared at time of planting certainly did not require artificial and liquid manure in addition. We are convinced this excessive manuring is responsible for much of the mildew troubles that beset the amateur. We should advise you to cut off these buds at once, and there will yet be time for a fine autumnal display, although it will be rather late. This is, of course, supposing the varieties planted are really free bloomers. A dusting with flowers of sulphur will check the mildew, and there will be no danger of injuring any buds such as is possible with liquid remedies.

Sempervivums, &c. (G. BEAUMONT).—The Cobweb Sempervivums are very few in number, and are *S. arachnoideum, *S. a. rubrum, *S. a. Lageri, and *S. Hookeri. The most distinct Sempervivums are S. montanum, S. triste, S. violaceum, *S. Regine Amalae, S. acuminatum, S. calcaratum, S. calcaratum, S. glaucum, S. spinosum, S. Verticill, S. hirtum, S. Pictoril, S. Powell, S. boutignyannum, and S. globiferum. The best Sedums are S. acre aureum, S. arborescens, *S. a. monstrosum, *S. Ewersii, S. dasycarpum, S. fosterianum, S. f. glaucum, S. lydiun, S. Kamtschaticum, *S. K. variegatum, S. populifolium, S. hispanicum, S. h. glaucum, *S. Sieboldii, *S. f. fol. variegata, S. Telephium atropurpureum, and S. asiaticum. All of the above are hardy, and those marked by an asterisk may be grown in a cool greenhouse. The true character, however, is best seen on some rocky and sunny exposure.—E. J.

Isoloma culture (CONSTANT READER).—Isolomas are not at all difficult to cultivate provided they get a reasonable amount of attention. To succeed in their culture they need much the same treatment as the *Gloxinias*, and, like them, they pass the winter in a dormant state. They do not, however, form a solid tuber as *Gloxinias* do, but a creeping caterpillar-like rhizome, after the manner of some of the *Achimenes*. A suitable time to commence the culture of these plants is early in the year, before they start into growth, as they can then readily be sown by pot. Immediately on receipt these rhizomes should be potted in a mixture of equal parts of loam and leaf-mould with a good dash of sand. In potting the soil must not be pressed down too firmly, and the point of the rhizome from whence the future growth is pushed forth should be about half an inch below the surface of the soil. After potting the Isolomas should be placed in an intermediate house and but little water given them till they start into growth, after which they make rapid progress, when more water must, of course, be supplied; indeed, as the pots get well furnished with roots an occasional dose of liquid manure is beneficial. Pots 4 inches in diameter are very suitable for potting the rhizomes at first, then when sufficiently rooted they may be shifted into larger ones, say, 5 inches to 5½ inches in diameter. When plentiful the rhizomes are generally potted triangular wise, three in a pot, and shifted on without being disturbed. In this way larger specimens are formed. They will often flower well on into the autumn, after which the soil must be kept considerably dryer; in fact, throughout the winter just sufficient water should be given to keep the soil very slightly moist, but no more. Then in February turn out of the pots, shake the rhizomes clear of the old soil, and repot according to the instructions above given. Isolomas may be grown fairly well in the warmest part of the greenhouse, but as stated an intermediate temperature is necessary to do them at their best. The name of Isoloma is, botanically speaking, quite correct, but at the same time this group of plants is more generally met with in gardens and nurseries under the generic name of *Tydes*.

Planting rock bed (M. H. G.).—You can scarcely do better than obtain a selection from the following plants, all of which are suitable: *Aubrietias* (any), *Phlox setacea* in several kinds, also *Phlox rostrata*, *P. amena*, *P. divaricata*, &c., *Arnebia echioides*, *Anemone* (Hepatica) in variety, any of the alpine *Dianthus*, **Veronica prostrata*, **V. pectinata*, *Anemone nemorosa*, *A. spennina*, *Adonis vernalis*, *Saxifraga Wallacet*, **S. muscoides atropurpurea*, **S. Rhel*, *S. Guildford Seedling*, *S. cochlearis*, *S. longifolia*, *S. cotyledon*, *S. pyramidalis*, *Megasea* in variety, *Lychnis Viscaria plena*, *Iris pumila*, *I. nudicaule*, *Heuchera sanguinea*, *Gentiana acaulis*, *Campanula muralis*, **C. pumila*, **C. p. alba*, **C. gargarica*, **C. g. alba*, **Alyssum saxatile*, **Zauschneria californica*, **Corydalis thalictroides*, *Vittadenia triloba*, **Thalictrum adiantiforme*, *Thymus lanuginosus*, **Salix herbacea*, **Rubus Arcticus*, *Geothra macrocarpa*, &c. Those marked by an asterisk are suitable for covering the stone edges of the pond. None of the plants enumerated are more than 1 foot high in

flower, excepting *Megasea* and *Heuchera*, but these are worthy subjects by reason of their tufted leaf character. A large number are of somewhat spreading habit. You could vary and extend the flowering season by planting a few bulbs, such as *Iris*, *Snowdrops*, *Snowflakes*, *Daffodils*, &c.

Lady Downe's Grape.—Berries spotted and shrivelling (A. B.).—This undoubtedly is a true case of what is technically known as the Grape "scald." As long as we can remember Lady Downe's has been specially addicted to this malady. The berries are invariably affected during the process of stoning, and this ordeal seems to go harder with Lady Downe's than with any sort we know. Whether it is because the seeds of this variety are usually larger than the seeds of many other varieties we cannot tell, but certain it is that the berries become so sensitive at this time that they are easily injured. The nature and origin of this disease, as far as we know, science as yet has not revealed. Many years ago we suffered as much from this disease as our correspondent, but in later years not at all, and this in consequence of taking the precaution of giving the Lady Downe's vine abundance of air day and night, top and bottom, with lower temperature, for as long as the process of stoning was going on (three weeks or a month), thus giving the vine more time with less strain while passing through this ordeal. This has been a complete cure in our case, and we doubt not it will be with our correspondent.

Plants under trees (LADY JACKSON).—Plants that will grow under the shade of a spreading Cedar of Lebanon are very few, those likely to give the most satisfaction being as follows: *Ivy*: These are indispensable for this purpose, and of them there are many beautiful and distinct varieties. *Periwinkles*: All the forms of the greater and the lesser *Periwinkle* will hold their own under the conditions named. *Hypericum calycinum*: The host of the St. John's Wort for such a situation—*Cotoneaster microphylla* and *C. horizontalis*, the first-named of which is evergreen, and the other deciduous. *Ruscus aculeatus* (Butcher's Broom), *Euonymus radicans*, and *Daphne pontica* can also be recommended. In the case of plants under trees it must be borne in mind that they are by the overhead canopy deprived of a good deal of rain that would fall to their share in the open ground, hence artificial watering will be more necessary than if they were fully exposed.

Rose growth diseased (E. P., Hertford).—We are of opinion that the disease upon the piece of growth sent is what is known as "Rose tumour." You will see it described in the able article on "Fungoid Pests of the Garden," by Dr. Cooke, which appeared in the *Journal of the Royal Horticultural Society*, Vol. XXVII., Part I., published last September. Apparently there is no known cure for this disease, but we should say that it might be prevented by replanting the plants into some new soil. We note you say the plants of Bardon Job from which the piece of wood was taken have not yet been planted two years, and that it is extraordinary to find them making growths 8ft. to 10ft. long. Perhaps you have over-dosed them with some chemical manure. In any case we should advise you to cut these growths back past the places where attacked. It would not be wise to do this just yet if there are many shoots attacked on the one plant, but if only one shoot per plant, the sooner it is done the better. We have known insects to puncture the wood of Rose plants and thereby cause diseased-looking blotches similar to those on your plants, but the enormous growths made by this particular Rose leads us to suppose that the disease is the Rose tumour, caused possibly by over-fertilizing.

Shrubs for buttresses (BRIMSOP).—By far the best of the double-flowered Brambles is the pink form, known generally as *Rubus fruticosus flore rosea*, and occasionally as *R. bellidifolius*, but in the *Kew Hand List* it bears the name of *R. umifolius flore-pleno*. The blue-flowered shrub mentioned in your letter is, we should say, one of the species of *Ceanothus*, perhaps *C. dentatus* or *C. papillosus*, both of which have from small to medium-sized leaves, dark green. Flowers are produced profusely in May and June. Other good subjects for the purpose mentioned are *Azara microphylla*, *Cholera ternata*, *Eucalyptus macrantha*, *E. philippiana*, *Cotoneaster microphylla*, common *Jasmine*, *Jasminum revolutum*, and *Olearia grandis*.

Lilium auratum bulb decaying (ISABEL M. BRUXNOR).—The bulb sent shows no trace of destructive fungoid or other diseases, but has the appearance of having been grown in a soil too wet and heavy during winter. The basal roots have decayed as fast as they were produced, and the discoloured and decaying scale tips show signs of a sour soil during the past winter. A healthy young growth in the middle of the bulb would, in the ordinary course, have developed a flower spike if the condition of the soil admitted. In most cases, and especially in Scotland, it is advisable to grow Lilies amid low-growing shrubs, such as *Asclepias*, &c., whose roots would correct any excess of moisture in the soil. The small "grub" sent is harmful to a degree, but is not responsible for the condition of the bulb sent.

GARDENING APPOINTMENT.

MR. STEWART GRAY, late gardener to Sir E. Lechmere, Bart., Rhidd Court, Worcester, as head gardener to the Right Hon. the Earl of Idlesleigh, Pynes, Exeter, Devon.

CATALOGUES RECEIVED.

Bulbs.—Messrs. Sutton and Sons, Reading; J. Veitch and Sons, Limited, Chelsea; W. Paul and Sons, Nurseries, Waltham Cross; W. Bull and Sons, Chelsea; Cooper, Taber, and Co., Limited, 90 and 92, Southwark St., S.E.; Messrs. Little and Ballantyne, Carlisle.

Bulbs for Early Forcing.—A. Perry, Hardy Plant Farm, Winchmore Hill, London.

* Many contributions to "The Editor's Table" will be noted next week.

* The Yearly Subscription to THE GARDEN is: *Inland*, 15s.; *Foreign*, 17s. 6d.

THE GARDEN

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[SEPTEMBER 5, 1903.]

DAHLIA FANCIES.

DISAPPEARANCE OF THE OLD DECORATIVE DAHLIAS.

ON Tuesday and Wednesday the Drill Hall, Westminster, where the Royal Horticultural Society hold its fortnightly meetings, was filled with a beautiful display of Dahlias of all classes. The occasion was the annual exhibition of the Dahlia Society. A careful look round was convincing evidence of the almost total disappearance of the older decorative sorts with wide flat petals.

This is extremely regrettable, as it is just these wide-petalled Dahlias that are of all their kind the ones most useful in good gardening for grand effects of colour in the late summer and autumn. It is not to be denied that the starry flowers have a prettiness and refinement of form that will befit them for the show table and for room decoration, but to let these be the only garden Dahlias that we may now have seems to us a sheer perversion of good taste and good sense. Beautiful though some of the most free blooming of them are, there is scarcely one among them that for honest and simple garden use can approach in value such of the older flatted-petalled kinds as, among the reds, King of the Cactus, Cochineal, Lady Ardilaun, and Fire King; among yellows, William Pearce, Lady Penzance, and Lady Primrose; or such fine things as Henry Patrick among whites. To let this grand type of a good flower fall into disuse is to neglect some of the very best flowers we can have in our gardens.

We cannot but think that this exclusive approval of the starry, twisted-petalled flowers among the garden Dahlias is but a passing fashion, and would earnestly counsel growers not to lose sight of the fine old sorts such as those just named. Some of the most thoughtful and practical amateurs would not on any account be without them, and, though admitting and admiring many of the starry Dahlias, would never allow these to claim precedence of their more useful brethren.

Probably the taste for the newer varieties is to a large extent an artificial one. It may be that it is overfed by honours on the show table, and it would appear that it holds its present position more on account of the comparative novelty of form than as the result of a just appreciation of true beauty. The newer forms certainly cannot claim considera-

tion for garden utility in comparison with the best of the older Dahlias.

Another class of this good flower that, according to the evidence of the nurseries and the shows, is falling into disuse is that of the large-flowered, low-growing sorts. A few years ago there were grand things among these, already excellent and showing infinite promise, and of distinct utility in garden decoration.

We ask ourselves what is the meaning of these freaks in Dahlia fancy. In the case of the old show flowers we know exactly where we are. They are for the competitions of the Dahlia societies and for the pleasure of those who honestly enjoy their rigid perfections. They have their place, though that place may not be in the most beautiful gardens. But why a grand development of a good flower should be thrust aside in favour of a form of lesser utility it is difficult to understand. Are there so few people who care about the truer aspects of garden beauty, or is it that growers are so anxious to raise prize-winning varieties of the newer pattern that nothing else is put before the horticultural public at the shows?

We do not desire to decry the narrow-petalled Dahlias, but to remind amateurs of the extreme garden value of the good kinds that for a time at least are not receiving the consideration that is so justly their due.

KEW NOTES.

INTERESTING PLANTS IN FLOWER.

Temperate House.

CALCEOLARIA INTEGRIFOLIA, Clematis meyeniana, Crotalaria capensis, Desfontainia spinosa, Fuchsia simplicicaulis, Meryta Sinclairii, Pitcairnia ferruginea, Solanum pensile, Tacsonia Van Volxemi, and Tibouchina heteromalla.

Palm House.

Ardisia Oliveri, Chamsedorea pulchella, Ixora (various species and varieties), Quisqualis indica, and Thunbergia grandiflora var. alba.

T Range.

Echmea fulgens, Æ. f. var. discolor, Costus speciosus, Hamanthus coccineus, H. Katherinae, Hoya imperialis, Impatiens Oliveri, Ixora macrothyrsa, Kleinia Galpini, Medinilla Sieboldii, Physostelma Wallichii, Ruellia amena, R. rosea, Scutellaria coccinea, S. violacea, Stigmaphyllon ciliatum, Tillandsia splendens var. major, and Tylophora asthmatica.

Orchid Houses.

Bulbophyllum grandiflorum, B. mandibula, B. saltatorium, Cattleya Aclandiae, C. Eldorado var. Wallisii, C. Grossii, C. velutina, Cymbidium aloifolium, Cypripedium spicerianum, Dendrobium macrostachyum, D. sanguinolentum var., D. secun-

dum, Dipodium pictum, Epidendrum vitellinum majus, Habenaria carnea, Ionopsis paniculata, Lælia elegans, L. xanthina, Liparis elata, Masdevallia nidifica, M. veitchiana var. grandiflora, Miltonia candida, M. castanea, M. Clowesii, M. Cogniauxiae var. bicolor, Oberonia ensiformis, Odontoglossum aspidium, O. bicktonense, O. madrense, Oncidium crispum, Rhynchostylis retusa, Sarcanthus Williamsoni, Selenipedium calurum, S. caricinum, S. Sedeni, Spathoglottis plicata, S. pubescens, Stenoglottis longifolia, and S. l. var. alba.

Greenhouse.

Achimenes coccinea, A. longiflora macrantha and others, Bredia hirsuta, Calceolaria Burbidgei, Chironia linoidea, Geraniums in variety, Hydrangeas in variety, Lantanas in variety, Lilium sulphureum, and many other things. In this house are groups of well-fruited plants of Rivina humilis, garden forms of Capsicum annuum, and Solanum Melongena (Egg Plant).

Rock Garden.

Acaena microphylla, Aconitum paniculatum, Anemone japonica, Aster linariifolius, Calceolaria mexicana, Campanula venusta, Carlina acaulis, Chelone Lyoni, Dianthus superbus, Epilobium Dodonæ, Kirengeshoma palmata, Linum flavum, Lysimachia Henryi, Origanum pulchrum, Platycodon grandiflorum var. glaucum, and Polygonum affine.

Herbaceous Ground and Borders.

Alyssum maritimum, Anaphalis margaritacea, Aster (numerous species), Blumenbachia insignis, Coreopsis tinctoria, Cuphea Llaves, C. procumbens, C. Zimapani, Diascia Barbara, Digitalis laevigata, Echinacea purpurea, Gaillardias in variety, Galtonia candicans, Gladiolus in variety, Glaucum flavum var. fulvum, Hunnemannia fumarisfolia, Kniphofias in variety, Lavatera trimestris, Leptosyne maritima, Loasa hispida, L. vulcanica, Lobelia fulgens, L. sessilifolia, L. Tupa, Mirabilis Jalapa, Pentstemon (various species and varieties), Phytolius capensis, Rudbeckia maxima, Sclerocarpus uniserialis, Silphium terebinthinaceum, Stenanthium angustifolium, Tritonias in variety, Verbena Aubletia, V. erinoides, Veronica exaltata, and V. incana.

Arboretum.

Calluna vulgaris and varieties, Clematis in variety, Hydrangea paniculata, Hypericums in variety, and other things.

NATIONAL ROSE SOCIETY

THE DATE OF THE METROPOLITAN EXHIBITION.

THE following letter has been sent to us for publication:—

"To the honorary secretary of the National Rose Society. When, at the annual general meeting of the National Rose Society, held last December, it was decided by a majority of one to hold the metropolitan exhibition in the gardens of the Inner Temple on July 1 in preference to July 8, some of us doubted the wisdom of the decision. A leading evening paper, in its report of the show, dated July 1, states: 'The National Rose show this year is an exhibition representative only of the Southern Counties. The Midland and Northern Counties will not be able to show for a fortnight or so. That the southerner has had it all his own way will be seen by the record of the trophies and principal prizes.' We may add to this that in no instance was the

southerner at his best. But even if he was the compulsory absence of the northern and Midland growers, not only in this but in several years past, seriously challenges our society to the name of National.

"At the metropolitan exhibition is held the friendly contest for the championship of the year. This gives it an importance not possessed by any other Rose show. When this is held Roses should be at their best. Can it be maintained that Roses are at their best between July 1 and July 4? Yet it is on these dates that the metropolitan show has been held six times during the last seven years.

"It will be seen from the subjoined extracts from the annual reports that in two years only out of seven was the metropolitan show a good one. The one in 1887, held on July 2, an abnormally early season, the other in 1900, on July 7, the largest . . . yet held by the society. On the other hand, the same reports affirm that the northern show held, with one exception, on dates ranging from July 15 to July 19, was invariably a good one, four shows out of seven being described as 'the best Rose show of the year.' We are therefore of opinion that the metropolitan exhibition is held on too early a date.

"If it be pleaded that this exhibition should be held alternately, early and late, we would reply, that the latest date on which this show has hitherto been held is not late, but barely mid-season. And, mindful as we are of the large number of exhibitors residing south of London, we nevertheless think that the interests of individual exhibitors should be subservient to the interests of the National Rose Society as a whole; we desire that the public may see the Roses at their best, and that the metropolitan show may be recognised as the best Rose show of the year.

"Distance from London militates against a representative gathering of rosarians at the annual general meeting. We therefore deprecate that the fixing of the date of this important exhibition should be left altogether to a chance majority of those attending and voting, and we ask that 'Regulations to Exhibitors,' should be added these words, 'The Metropolitan Show shall not be held earlier in the year than July 6.'

"S. Reynolds Hole, president, The Deanery, Rochester; F. R. Burnside, vice-president, Great Stamburgh Rectory; Rochford, Essex; George Gordon, vice-president, Kew; E. B. Lindell, vice-president, Bearton, Hitchin; Henry V. Machin, vice-president, Gateford Hill, Worksop; Joseph H. Pemberton, vice-president, The Round House, Havering-atte-Bower; Alfred Tate, Downside, Leatherhead; W. Wilks, vice-president, Shirley Vicarage, Croydon."

Several extracts from the annual reports of the National Rose Society for the past seven years then follow. They all show that a later date would be advisable.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

September 9.—Great Autumn Show of Royal Caledonian Horticultural Society (two days). This show is held in Edinburgh; Dahlia Show at York.

September 11.—Manchester Dahlia Show.

September 15.—National Dahlia Society (Committee Meeting); Royal Horticultural Society (Meeting of Committees), twelve noon.

September 16.—Hull (two days).

September 29.—Royal Horticultural Society and Conference at Chiswick (three days); Gardeners' Dinner, Holborn Restaurant, six o'clock.

National Rose Society.—Alteration of the date of the summer show.—On page 161 will be found a letter from the president of the National Rose Society and a few others keenly interested in its welfare, urging the importance of fixing a later day for the metropolitan show. There is wisdom in this, but we do ask to be delivered from a two-day display unless special provision is made the second day to provide the public with flowers that they have paid their money to see and expect to do so.

The London Dahlia Union.—Owing to the closing of the Royal Aquarium, Westminster, the annual grand display of Dahlias made by the union, which comprises all the leading Dahlia raisers and cultivators of the day, will take place in the Prince's Hall of the Earl's Court Exhibition, which is near the entrance in the Warwick Road, on Wednesday and Thursday, September 16 and 17. It is during this particular week that the

popular Cactus Dahlia is seen at its best, and on this occasion there will be on view not only all the finest new varieties of the present year, but several from abroad, including some very singular and interesting variations of the type of home and foreign production. As the Dahlia show will form a part of the general exhibition, it is free to all who pass the gates, and the flower-loving public will have an opportunity of witnessing one of the largest exhibitions of all types of the Dahlia ever seen in London. The secretary and manager is Mr. Richard Dean, V.M.H., Ealing, London, W.

A record price for Kent-grown Potatoes.—Messrs. Horne and Sons, Cliffe, Rochester, have sold to a speculating buyer two tons of Northern Star for £317. The said buyer has refused £400 already for them. This Potato is turning out all that is claimed for it—strong grower, abundant cropper, good quality, and free from disease. It is expected that Northern Star will make £400 per ton before Christmas. There are plenty of buyers but few sellers.

Gladioli from Messrs. Kelway and Son, Langport.—It is always a pleasure to receive a boxful of flowers from Messrs. Kelway, especially of those things which they have made in a sense their own, such as the Gladiolus. Visitors to the large shows held all over the country and to the Drill Hall, Westminster, are aware of their beauty. We are reminded of them now by several varieties, which show how much we owe to Messrs. Kelway for the advances made in acquiring new sorts. One of the most beautiful was Egeria, the flowers set thickly on the stem, and of the softest heliotrope, a peculiarly lovely shade. Seraph was quite different; the flower is large, but without any tendency to coarseness. Its colouring is brilliant rose, with deeper stripes. Gribou is one of the softer colours, white, with rose-purple stripes on each segment, a very distinct and welcome flower. Duke of Norfolk is an immense scarlet variety, and must make a gorgeous show in the nursery. These are only a few of the varieties sent, but none were of poor colouring or form.

A rare sweet-scented annual.—A rare annual flower has come to light, which, if we mistake not, will be sought after in the future. It bears the terrible name of *Hebenstreitia comosa*, and it comes from South Africa. We noticed a lot of it in the seed-beds of Messrs. James and Son at Farnham Royal, and at first thought it was a form of *Mignonette*. The flowers are on a slender spike, and have just that dull shade of white that even the best *Mignonettes* possess. It is pretty in the daytime, but on a warm summer evening a nutty scent floats over the garden; it comes from the *Hebenstreitia*, and many will agree with the writer that a mingling of perfumes distilled from *Mignonette*, Rose, and Virginian Stock, and such a fragrant flower as the *Hebenstreitia* gives a new joy to the garden when the flowers are in darkness. A whiff of *Hebenstreitia* perfume is delicious. The seed may be sown outdoors in April. It was introduced—at least, brought into conspicuous notice—by Messrs. Sutton and Sons of Reading.—VIATOR.

The Blackberry season.—With the advent of September, and the slow ripening of Blackberries in the hedges, thoughts turn to this delicious wild fruit, particularly in the case of those who seek to add a little to their incomes by picking the berries for sale. Whatever may be the failures with fruit under cultivation, Nature seems to have a way of protecting her wildings, and the seasons are not many when Blackberries are a failure. This year they promise to be a good crop, and on account of the scarcity of other fruits there is sure to be a good demand. Apart from any other considerations, however, there is a peculiarly delicious flavour about Blackberries which no other fruit possesses, and they make an excellent jelly. All points considered, then, it seems likely that Blackberry pickers will enjoy a lucrative season.—H.

The late Mr. William Housley, Sheffield.—We are now able to supplement the brief notice given that we gave in last

week's issue of the death of Mr. William Housley in his fiftieth year. For the last thirty-two years he had been on the staff of the Sheffield General Post Office, and from 1894 to the time of his decease he held the position of assistant superintendent. It was as secretary of the Sheffield Chrysanthemum Society, however, that he was so well known to northern horticulturists. He held this position for fourteen years, and the success which attended the many shows held at the Corn Exchange, and in more recent years in the historic Cutler's Hall, was largely due to his zeal. The interment took place at Norton Cemetery, Sheffield, on Friday, the 28th ult., in the presence of a considerable gathering of people, in which was included a wide circle of gardening friends. Representatives from the Sheffield General Post Office and the Sheffield Chrysanthemum Society, besides those of other societies in affiliation, were there to pay their last respects to one who had served them so well.

The Gardeners' Dinner.—At a meeting of the committee promoting this gathering, held on Tuesday last, it was mentioned that foremen and under-gardeners believed they were not eligible to be present. The committee desire it to be known that all associated with horticulture will be cordially welcomed. It was also resolved that no tickets could be issued later than the 25th inst., and that by that date all must be paid up. It is also desired to be known that where parties of friends wish to sit together, if any one ticket-holder will send his name and the number of his party to Mr. A. Dean, the secretary, Kingston-on-Thames, the dinner committee will endeavour to arrange accordingly. Up to this date 320 tickets have been issued.

The Hollyhock as a wall plant.—I was at a place called Ashton Keynes last week; it is on the infant Thames, in Wiltshire, above Cricklade. The cottage gardens there are very pretty, well kept, and full of flowers. Each garden has a dipwell in it, with a circular raised wall round it, about 2 feet 6 inches high; the water is quite near the surface and the pails are lifted out by means of a stout stick with a hook at its end. Most of the cottages have the infant Thames between them and the road, and each cottage and house has a bridge to it. But all this is not what I am troubling you with a letter about. What I thought would be a novelty to you as it was to me was a pink Hollyhock grown as a creeper against a wall. The cottage in this case came right up to the road, from which it was separated by a very narrow strip of fenced in garden, scarcely 2 feet wide, and in this the Hollyhock was planted. Its leading and side shoots were trained back to the wall between the door and the window, a space of about 18 inches wide. On this narrow strip of wall the plant did wonderfully well. It was held back by string nailed across, and the foliage and blooms accommodated themselves to the situation. I hardly knew what it was at first; without my glasses I thought it was a new sort of Rose. It seemed a bit cruel, but considering the limited space it was very excusable, and the effect was good.—G. D. L.

Hippeastrums at Shrewsbury.—We have been accustomed to regard Captain Holford's exhibit of Hippeastrums at the Temple Show as startling by reason of the lateness of their blooming, but what shall be say of the display at Shrewsbury nearly three months later, when they were shown as fresh and bright as in the spring? It is difficult to understand how they have been retarded to such an extent, for the refrigerator system, so much in vogue with Lilies and other hardy plants, would be fatal in the case of such tender plants as the Hippeastrums. Be the means employed what they may, the results are certainly highly satisfactory, that is as far as obtaining good flowering examples of a beautiful class of plants quite outside their usual season of blooming.—H. P.

The outdoor Tomato crop.—The succession of tropical summers of a few years ago gave a wonderful impetus to the culture of outdoor Tomatoes, and not only did they come to be represented in nearly every garden, but acres of plants

were grown outdoors for market, and showed respectable profits at the close of the season. Encouraged by success the culture of Tomatoes outdoors extended, but the season of 1902 proved beyond doubt that the profitability of this crop in the open is very largely a question of weather, and this year we have further demonstration of the fact. I know men who went to the trouble and expense of raising hundreds of plants last year, and devoted acres of good land to them, and then got barely enough back to pay for the seed. The damp and backward season prevented the setting of the blooms, and in cases where this was effected the black spot disease which set in later upset any calculations that were formed regarding ripe fruit. This experience naturally checked the ardour of many who thought they had struck a good line with outdoor Tomatoes, and they gave it up, but others held on and planted again this season. I wish them all success, but by the end of 1903 I think it will be generally agreed that Tomatoes in the open are a very precarious crop in Britain. Tomato growing for pleasure and profit are two different things, and even if the amateur does get a few successive failures they do not affect his pocket, and he will doubtless go on planting with the hope of better results. At the same time, I wonder how many hundreds, even thousands, of plants have been raised and planted this year that will return absolutely nothing to the cultivators, even in private gardens. In my own experience I have seen instances enough to satisfy me that my calculation is not outside the mark, and even in very favourable circumstances the amount of sunshine we get in September will govern the quantity of ripe Tomatoes obtained outdoors. Taking into consideration the uncertainty of our climate, whether the game is worth the candle, is a matter of individual opinion, but I am convinced that the only man who can hope to do anything with Tomatoes outdoors, except in very favourable seasons, is he who follows a certain defined routine of treatment. This really consists in putting out strong plants early in June and growing them in a warm and favourable position. To put out tiny, undernourished weakly plants and expect them to establish themselves and produce a crop in such a season as this is sheer folly. The time at their disposal is not long enough. In a few cases I have seen Tomatoes ripened outdoors in August this year, but they were well established when put out, and enjoyed the favourable conditions of a warm south wall. Restricted root room is also advisable in the case of outdoor Tomatoes and plants that are grown in boxes, wooden pails, or pots plunged in the ground make less sappy growth, and commence to show fruit earlier than specimens that are planted in the open ground.—G. H. H.

The Gladstone Pea.—This fine late Pea was the variety at Shrewsbury show, where vegetables were shown in such superb form. How quick high class growers such as Messrs. Gibson, Beckett, Horspool, and others are to secure the finest exhibits, for the Gladstone Pea was found in most of the leading collections of vegetables, as well as taking the highest places in the single or double dish classes. No one seems to know who raised it or first put it into commerce. It would be interesting to know. The pods are long, slightly curved, invariably containing ten good Peas, opens and shells well, a great recommendation, pods and Peas good colour, and the latter of excellent flavour. It holds the same place as Senator does among the early ones. Both are about 3 feet in height, and are heavy croppers. When grown at Chiswick at the same time, so fine were they that the fruit committee unanimously awarded both varieties a first-class certificate.—A. D.

Agapanthus minor mooreanus.—The Blue African Lily, as the Agapanthus is popularly called, is so ornamental that it is regrettable it is not hardy in every garden. There are some gardens, of course, where it is hardy, even in North Britain, and one may mention such nurseries as that of the Messrs. Cocker, of Aberdeen, who grow it largely. If, however, these larger forms of Agapanthus minor are not hardy, this is not the case with the pretty little A. minor mooreanus, often sold simply as A. mooreanus. Growing in a

dry and sunny position here it has increased greatly since first tried outside some years ago, and even in a disappointing season like this for sun-loving flowers it has done exceedingly well. It is never protected, and never fails to send up its fresh leaves and its long, wind-resisting stems, bearing each their umbel of blue flowers. The present seems a good time to draw attention to its beauty and hardiness.—S. ARNOTT, *Carsethorn, by Dumfries, N.B.*

Eccremocarpus scaber.—Although it is about eighty years ago that this beautiful creeper was introduced into England from Chili, it is seldom met with in suburban gardens, probably because its habit of dying right down in the winter makes it useless for hiding unsightly walls. In Kent there is a picturesque house set in a wide expanse of trees and Bracken. With its latticed windows, rough straw-coloured walls, and long roof being rapidly weather painted lovely shades of red and purple, it has little need of creepers; but on the south side a plant of Eccremocarpus scaber was put in last autumn. The sandy soil seemed to suit it. It began to climb in the spring, and has reached the second story. It flowered first in July, and should continue to do so until November. From within the house the graceful flower sprays look like some delicate tracery across the window pane, but they bear unruined much buffeting from wind and rain, a good trait in such seasons as this. The tubular flowers match in colour the Montbretias in the border below. This orange, washed with red hue, and the cool green leaves on a pale yellow background, make one of those happy combinations of colour that satisfy the eye at the time, and remain in the memory for practical use afterwards. The seed-pods are pretty, looking like bunches of fruit. To propagate the plant seed should be sown in heat in February, and will flower out of doors the same year, or cuttings can be taken in August and kept in a cool frame during winter. In sheltered places the roots may be left in the ground all winter; when likely to be exposed to frost and wet, it is best to protect them, or take them up, replanting them again in May.—W. SPURLING.

Begonia Marie Bouchet.—There is a widespread idea that only new or comparatively new plants are given certificates or awards of merit by the Royal Horticultural Society, but that such is not the case is exemplified by this Begonia, which was distributed as long ago as 1880; indeed, it may be regarded as one of the earliest Begonias with double blossoms, and the representative of a type which has been ousted by the desire for compact habited plants with large erect flowers. The specimen in question was given an award of merit, a well-deserved honour, for, as shown, the long trailing shoots formed an admirable subject for growing in a suspended basket, a purpose for which those of compact habit are not so well adapted. This Begonia is only one of many subjects that have been introduced, then nearly lost, and finally reappear in after years, attracting then far more notice than they did at first.—H. P.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London.

DODDER ON HEATHER AND GORSE.

Miss Smallpiece sends a very interesting contribution to our table, some shoots of Heather and Gorse with Dodder growing on them. They were picked on the Canford Cliffs near Bournemouth, and masses of Heath and Gorse were quite covered

with it. Our correspondent asks: "Is it unusual for it to grow on Heather as well as Gorse?"

We have frequently seen it on the Gorse, but not on Heather. Perhaps someone will kindly answer the question.

ECHINOPS MACROCEPHALUS.

Mr. Hiatt Baker sends flowers of this handsome plant with the following note: "This is very distinct from any other Echinops I have yet seen in its general character. It forms a bush some 3 feet high, and when well grown produces flowering heads from the axils of nearly all the leaves up the main stem. The leaves alone make it worth a place as a foliage plant. The bottom ones are 18 inches or more long, deeply cut, of firm substance, and armed with strong whitish spines at all their points. The inflorescence, as you will see by the specimen sent, is most interesting before the flower-head emerges from the protecting leaves, in which state the leaves are bound together by a fine web, as if a caterpillar had spun a cocoon amongst them. The flowers are whitish, and therefore not so attractive as those of some of the family. The plant is—I understand from Canon Ellacombe (who sent Kew their plant)—of Siberian origin."

CANTUA DEPENDENS FROM THE ISLE OF WIGHT.

Lord Walsingham sends from Mrs. Gwytherne-Williams' garden at Belvedere, St. Lawrence, Isle of Wight, flowers of Cantua dependens, which "has been out unprotected five years at the foot of the stone steps going down from the house, and has now flowered for the first time. Mandevilla suaveolens has also flowered there this summer."

We are much interested in seeing flowers of this brilliant Cantua, which we usually associate with the warm greenhouse, from the open garden. Such contributions to our table only show how many things we grow under glass will in the warmer parts of the island flower in the open. The flowers sent were exceptionally fine.

BUDDLEIA VARIABILIS.

I am sending some flowering sprays of Buddleia variabilis, showing two distinct shades of colour, one considerably richer and darker than the other. Three years ago I received two small plants from the Royal Horticultural Society, which have flourished and grown amazingly, being now from 6 feet to 8 feet high and as much in diameter, and both have been covered with bloom for many weeks past. I also got a small specimen of B. intermedia from the Royal Horticultural Society, but this is apparently not such a strong grower, though the blooms are of a very pleasing shade, darker than the best of the two intermedia. All seem to be hardy and very desirable, though they evidently require plenty of space in which to attain their full development.—S. G. R.

Beautiful sprays of Buddleia variabilis, one much darker in flower colouring than the other.

SHRUB FLOWERS FROM TORQUAY.

Mr. H. D. Palmer, St. Mary Church Road, sends some more interesting flowers with the following note: "I send you a few more flowers from tender shrubs that are doing well in my young garden (two years). They have all stood two years, unprotected in the winter, and are doing well. The Mitraria coccinea is a most beautiful semi-scandent habited shrub, and its cheerful small foliage looks well at all times. It is so neat, but when covered with its dazzling scarlet flowers it is unique. Next to it I have Philesia buxifolia and Tricuspidaria hexapetala in a peat border facing north-east, but sheltered from all winds but south-east, and partly from that at the back are Lapagerias, white and rose. The Philesia flowered a little time ago, but seems at present more bent on pushing out underground shoots than to increasing its head, so I do not expect many flowers till its root activity has closed a bit and a bigger head formed. All are doing well. The Metrosideros floribunda grows in the open and is doing well. I have another sort, with cream flowers, I got under the name of Callistemon angustifolia, but I

have not had it long enough to say how it is going to do. The evergreen *Pentstemon cordifolius* is making fine growth against a south-east wall, and is covered with flower. *Lagerstroemia indica* lives with me unprotected, but has not yet flowered. I send you two *Ceanothuses*, *Indigo* and *Lustre*, new sorts, which are welcome as a break in the range of cold blues of so many of them. I send a spray of *Gloire de Versailles*, which is growing rampantly against the house as a contrast. *Indigo* is a very fine shrub, and when well established will be remarkable in its deep blue clothing."

An interesting collection of tender shrubs in full flower. We were pleased to see the beautiful *Ceanothus Indigo*. It is the finest of its race for colour, a deep blue.

JABOROSA INTEGRIFOLIA AND SCABIOSA PARNASSI.

Mr. Fitzherbert sends from Kingswear, South Devon, the following note: "I send you flowers of *Jaborosa integrifolia*, the white *Nicotiana*-like bloom, and *Scabiosa Parnassi*. The *Jaborosa* is growing in light dry soil in a sunny spot, and flowers from early in July till September or later. The flowers have a Musk-like fragrance when fresh. The *Scabiosa* is a good rock garden plant, and spreads fast. The grey-green foliage is very dwarf, and is a setting to the rosy lavender flowers. It appears perfectly hardy here."

Two interesting plants; the *Jaborosa* is, as described by our correspondent, quite a "*Nicotiana*-like" flower. We were pleased to see the pretty little *Scabiosa Parnassi*.

PANSY QUEEN OF THE YEAR.

Mr. Crane sends a bunch of flowers of this pretty little "miniature" Pansy, which was raised by the late Dr. Charles Stuart. It is a delightful plant for the rock garden, and has blue, sweetly-scented flowers, which are about the size of those of the *Violet California*.

HEATHS FROM THE SURREY HILLS.

Mr. J. Clark sends a boxful of flowers for our table of the Heaths described below with the following note:—

"From the end of June until frost sets in there are Heaths of some sort or other in flower on the commons and railway banks throughout a great part of Surrey. The first to come into bloom is

"*Erica cinerea*, which is found throughout a great part of Western Europe, and probably no wild plant makes such a blaze of colour or lasts for so long a time. It first opens during June, and I have found plants of it in full flower at the end of September. The colour is a brilliant reddish purple, and the effect of half an acre or more in full flower is magnificent. I have heard that this is sometimes a difficult Heath to grow in a garden, but, if it is any guide, I may say that in a wild state it is found growing and flourishing in almost pure white gravel, the only soil being about 2 inches of sandy peat mixed with the gravel, while from 1 foot to 3 feet down one finds what is locally known as 'rust,' and which is as hard and as poor as a piece of rusty iron, which, in fact, it very much resembles. There are several varieties of this Heath which have received distinctive names, but such forms as *atroanguinea*, *purpurea*, and *rosea* can all be found in a day's ramble. The white variety *alba* is not so easily found; I have only seen one specimen of it in a wild state during the last two summers.

"*E. Tetralix* (the cross-leaved Heath) comes into bloom soon after *E. cinerea*, and is not so common as the others, being more scattered, so that a large mass of it is rarely seen. The leaves are in whorls of four, occasionally five, and are covered with white, silky hairs. The flowers are borne in terminal clusters, and delicate pink. There are two forms of this, *vars. alba* and *rubra*, and all make good garden plants. *E. Tetralix* is sometimes confounded with *E. ciliaris*, but the latter is only found in the south-west of England, though in general appearance the two plants are very much alike. The commonest Heath of all, however, is the Common Ling or Scotch Heather.

"*Calluna* or *Erica vulgaris*.—This covers acres of hillside with purple during the latter part of August and throughout September. It grows so thickly and the stems cross and recross each other so much that it is tiring to walk far through it. The soldiers of the 1st Army Corps found this out during the manoeuvres this summer, when they had plenty of marching through it, and raining most of the time, too. Many forms of this can be found, but rarely one equal to those now in cultivation, though the white one is fairly abundant. The best of the varieties are *alba minor*, *alba Serlei*, and *Hammondi*, white; *Alporti* and *flore-pleno*, purple, the latter double-flowered; and *rosea* and *rubra*, described by their names."

THE FLOWER GARDEN.

WATER LILIES IN 1903.

AFTER such an unfavourable season for bedding and flowering plants in general it is pleasing to find one bright and enjoyable spot in the pleasure grounds, viz., the water garden, although the *Nymphaeas* flower most freely when the weather is warm and we get plenty of bright sun. In spite, however, of the bad, sunless summer, we have had quantities of lovely flowers floating on the surface of our pools. The new varieties that have been introduced to our pools year by year have made the water garden one of the most pleasant places in the whole garden. The many visitors we get here to see the *Nymphaeas*, their admiration of them, and the number of enquiries for the best sorts and how to grow them, show that they will eventually be a feature in many more gardens than they are at present. After some years of practical experience in the cultivation of water plants, it may be of service to some about to start a water garden for me to send you a few notes on their cultivation here.

In the eight pools we have over fifty perfectly hardy *Nymphaeas* thriving well, and each variety has its especial charm, so much so that I should not like to lose one of them. My first flower opened on May 26. It was of *N. Laydeckeri purpurea*, and unless severe weather sets in some of the varieties will flower well into October. I strongly advise those about to

MAKE A WATER GARDEN

to choose a sunny position and sheltered from very rough winds. Above all avoid formality. The water garden here was made out of what was considered a useless boggy piece of coppice ground. There was a small pond close by and a very small spring feeding it, but it happened to be at the highest end of the coppice. This pond gave us our first start in water gardening. We have now laid out about four acres of this coppice ground, and formed eight pools for *Nymphaeas*, and a wind-about ditch for moisture-loving plants. This sort of rough old pond is found near many gardens. Why not make it beautiful with water plants? The eight ponds are all fed by the first and old pond, the water being carried from one to the other by pipes under the turf; the pools are cut out so as to give them as natural an appearance as possible, and run about in various directions, with clumps of moisture-loving plants between and near them. Sufficient short mown grass goes all round some and partly round others, so that visitors can examine with ease each *Nymphaea* when in flower. Small pools of this sort have advantages over a large lake for growing water plants; they can be made to have a more natural appearance, and the flowers can be seen and better examined, whilst it admits of more variation in the surroundings. In some places we have various *Reeds*, *Bamboos*, *Bulrushes*, *Lythrums*, and *Iris laevigata* (Kämpferi); in others patches of *Lobelia cardinalis*, *Cannas*, standard and bush *Fuchsias*, *Lilies*, *Hydrangeas*, *Erythrinas*, *Agapanthus*, &c.

Returning to the *Nymphaeas*, in each pool we grow from ten to fifteen sorts, all carefully labelled. We use zinc club labels. The plants are from 4 feet to 8 feet apart, according to the habit of growth of the various sorts. None are grown in water over 2½ feet deep; I find that they always bloom most freely in shallow water, especially the new hybrids.

Many plant their *Nymphaeas* in baskets made for the purpose, but I prefer large Orchid pans in first starting a new plant, especially if it is weakly. Pot the plants in rather stiff fibrous loam, squeezed in firm, and sink it in shallow water to begin with. As the plant gains strength shift it to deeper water, and when



VIEW IN THE GARDENS AT SANDHURST LODGE.

it is well on the way to make a good plant put it in its permanent place, sinking the pan in the mud at the bottom of the pond till it reaches the upper rim. This way of planting in small ponds has its advantage over the basket. In small ponds in a few years the plants require rearranging, and many of the strong-growing ones reduced. For this purpose I use a strong manure drag; work the prongs under the pan and attach a cord to the handle so that some can pull by the cord, others by the handle. This will generally fetch the whole plant out in a lump. It can then be divided as one wishes, and replanted again in the same way as before. Some recommend a good large clump of one variety, and on a large sheet of water this, no doubt, would be best, but in small pools it is different. Here variety of colour makes the most charming effect, and several medium-sized plants, with one to three crowns, are very pretty. If there are several pools, try and avoid a repetition of the same varieties in the different pools.

THE BEST NYMPHÆAS.

The British Water Lily (*Nymphaea alba*), grown in 1½ feet of water to a single crown blooms very freely and throws fine, pure white flowers. *N. Marliacea albida* has a gigantic snow white flower, and if the old and the small leaves which are often thrown up in the centre of the plant are picked off and the plant kept to one or two crowns the flower is very fine. *N. gladstoniana*, a very robust grower treated in the same way, throws up very large white flowers, quite distinct from the preceding one.

N. candida is another very large white; treat it in the same way. *N. tuberosa Richardsoni*, pure white, very large, with rounded petals, a very distinct variety. These four require about 2 feet of water, and this depth should not be exceeded or the display of flowers will not be large. *N. Marliacea carnea*, *N. M. rosea*, *N. Colossea*, and *N. William Doogue* have very large flowers, all delicate pink or blush, each distinct, and bloom continuously. They require similar treatment to the white, and the same depth of water. *N. Chrometella* is a fine lemon yellow sort, likewise requiring the same treatment. *N. odorata sulphurea* and *N. o. a. grandiflora* are very large flowered, the former deep sulphur, the latter much lighter. These make crowns very freely, and require replanting every other year. A depth of 18 inches of water is quite deep enough. *N. gloriosa* is a rich glowing red, very large, and of strong growth; it requires 18 inches of water, but need not be shifted for several years; it does not make crowns or foliage so freely as the former ones, and only the bad foliage need be picked off from time to time. *N. ignea* and *ellisiana* are much the same colour as *gloriosa*, but not so large in foliage or flower; they are very lovely, and *ellisiana* is exceptionally free. About 15 inches of water will grow these two well.

Among the best deeper shades with reddish crimson flowers are *Laydekeri fulgens*, *L. purpurea*, *William Falconeri*, *atropurpurea*, *Frebelli*, and *sanguinea*. These are six really fine, free-flowering *Nymphaeas*, requiring about 15 inches to 18 inches of water. The plants will not require dividing for three or four years. Keep the old foliage picked off during the flowering season.

Among the best brick-red flowered sorts are *N. andreaana*, *N. robinsoniana*, *fulva*, and *Aurora*. A depth of from 15 inches to 18 inches of water suits these four sorts; they are very free flowering. *N. suavisima*, *N. odorata rubra*, and *N. o. Exquisite* have lovely pink flowers. The foliage of these is short, and shallow water suits them best. They are best adapted for planting round the edge of the pond. *N. Laydekeri lilacea* is a lovely rosy lilac-flowered sort, and *N. Laydekeri rosea* and *N. L. r. prolifera* are also of a rose colour, varieties requiring rather shallow water. *N.*



NYMPHÆA MARLIACEA ALBIDA IN THE GARDENS AT SANDHURST LODGE.

pygmæa Helvola is a very small variety both in flower and foliage, but the flowers are thrown up in the greatest profusion the whole summer, and are of a delicate canary yellow, which makes this *Nymphaea* a real gem for shallow water. There are several other really good intermediate shades, but the ones I have described are the best, and would make a good effect to begin with.

W. TOWNSEND.

The Gardens, Sandhurst Lodge, Berks.

PROPAGATION OF THE DUTCH HYACINTH.

THE Hyacinth of the florists flourishes, reproduces itself, and preserves all its splendour from year to year nowhere better than in the neighbourhood of Haarlem in Holland. Its cultivation has been almost centralised there, though every country in the world has received bulbs from the Haarlem growers. Hence it happens that its intensive cultivation is scarcely practised elsewhere, and it is generally supposed that propagation is effected by simply separating the offshoots in the same manner as for most other bulbous plants. This normal method, it may be said, will suffice for an amateur, or for the more prolific varieties of Hyacinths; but when it is a question of obtaining thousands of bulbs, and still more, when it is a question of rapidly propagating new varieties, then in order to succeed an artificial method must be followed. It is this method, or rather these methods (for there are several of them), that we will describe. One of them at least is so abnormal, so foreign, to the law of natural evolution that it is interesting both as a matter of practical horticulture and of vegetable physiology. This process is not, however, special to the Hyacinth, since it is produced spontaneously on another plant of which we shall speak.

We know that in the Hyacinth, as in all other bulbous plants, properly so called, the bulb constitutes the essential vital part. This bulb is composed of a fleshy disc, which occupies the lower part, and represents a stem enlarged by flattening, the upper part constitutes the stem itself, whose leaves are represented by fleshy scales inserted in concentric circles. Normally, these bracteal leaves each shelter, as in other plants, a latent bud. Proof of this is furnished by the off-

shoots or young bulbs, which spring from buds sheltered by the old scales. In order to favour the development of these latent buds it would seem reasonable to free them from the scales which imprison them, and this is just the object of the two following proceedings: First, the mother bulb is cut vertically from its base to half its height into four, six, or eight parts, and then planted as soon as the wounds are healed; second, the mother bulb is cut horizontally, nearly in the middle, the lower part is then dried and planted. In both cases the number of offshoots produced by these mutilated bulbs is numerous, and may amount to as many as fifty.

The third proceeding, to which we especially call attention, is different, and is as interesting in principle as happy in effect. So far we have seen that the flattened stem is, as it were, the heart of the bulb, since it bears at the same time the roots, the scales, the latent buds, the normal leaves, and the central inflorescence. When the bulbs are taken up the scales are separated by means of a pointed and very sharp knife, just above the point of insertion, without deforming the bulb. The bulbs thus treated are like the others, kept dry during the summer, and at the time of planting at the base of the scales young offshoots are seen to be developing. We should have some doubt as to the efficacy of this proceeding if we had not seen in Holland bulbs thus treated develop a considerable number of scales, each provided with a leaf; and if we had not repeated the experiment.

The scales of bulbs being simply modified leaves adapted for use as reservoirs of nutritive matter, the proceeding becomes one of taking leaf-cuttings. We know that certain plants belonging to different families are susceptible of being propagated by cuttings from the leaves. The families of the Begoniaceae, Gesneriaceae, Cactee, and Crassulaceae include genera and species which practically are propagated by this method, notably the *Gloxinia*, *Begonia Rex*, *Echeveria*, &c. *Sedum corsicum*, which is admitted to be a hirsute form of *S. dasyphyllum*, offers one of the most curious examples of this, inasmuch as about the middle of the summer it drops its lower leaves, which spread upon the soil, first develop a bud, and then take root before the autumn, thus forming hundreds of independent plants.

Had it not been for the demands of commerce

who would ever have thought of thus depriving Hyacinth bulbs of their most essential part? Is it not a case of the old proverb, "Necessity is the mother of invention?" For science and industry we know are indebted to it for a host of discoveries of which they may well be proud.

S. MORTIER, in *Revue Horticole*.

THE TULIPAS.

(Continued from page 151.)

III.—DARWIN TULIPS.

THE Darwin Tulips are modern improvements on the old race of "Breeder" or "Mother" Tulips, so called on account of their great vigour and prolific increase. They are generally very tall, ranging from 18 inches to 3 feet high, and their flowers, though not proportionately large, have very stout weather-resisting petals, and the colours are generally clear and well defined, whilst many are exceptionally brilliant. They are May-flowering, and their cultivation calls for no special remark—one can grow Darwin Tulips anywhere, and grow them well. They are characterised by cup-shaped flowers, stout glaucous stems, free of leaves for quite one-half their length, and by very large bulbs which increase rapidly by offsets. Their colouring is usually self, varying in shade in different parts of the flower, and often with brilliant "eyes" or basal colouring. The "broken" Darwin, i.e., those which have sported a variegation, are separately classed as "Rembrandt" Tulips, and very beautiful they are. Little attention has hitherto been given to them, but there are many beautiful "breaks" well worth perpetuating, and in the near future they will doubtless find a place in most gardens. The Darwin Tulips are so loosely named that one cannot trust the lists of dealers, and "new" varieties are constantly being evolved by simply juggling with names, thus adding to the muddle. A selection of twenty varieties has been made, embracing all shades of good colours, and one can recommend them as the best of a representative collection, having regard to such points as colour, form, and capability of withstanding bad weather.

Beethoven.—Stems 20 inches high; flowers with broad petals, coloured rose, shaded silvery near the tops; basal colouring bluish grey externally, Cambridge blue internally, a shaft of white running throughout the length of each petal.

Clara Butt.—Stems 20 inches high; flowers globular, coloured a soft shade of salmon rosy near the base, and flushed externally with delicate pink; basal colouring a slight tint of blue. A very choice and deservedly popular Tulip, and the only good "Darwin" of this colouring.

Coquette (Van Dyck).—A very pretty flower of medium size; petals rosy, flushed darker near the mid rib, and keeled white on the inside; basal colouring Cambridge blue edged with a dark zone of red; stems, very slender, 18 inches high.

Diana.—Stems 18 inches high; flowers small, crimson, surfaces very glossy; base a small disc of rich blue. A neat and bright-coloured Darwin resembling Bouton d'Or in shape.

Early Dawn (Stabens).—Stems 2 feet high, very strong and thick; flowers rose-coloured externally, vermilion internally; basal colouring white, with slight blue stain. A noble-looking Tulip of fresh colouring, excellent in the garden.

Flambeau.—Tall, bold Tulip, coloured intense glowing crimson, outer base white, inner base blue-black edged with a broad band of sulphur; the basal colouring of this flower

is very remarkable, resembling a three-rayed Maltese cross resting on a black disc. A perfect Tulip in all ways, more dazzling than a Gesner, and possessing the refinement and basal markings of the rare Tulipa Eichleri of Regel.

Glow.—A very brilliant Tulip of medium size, coloured like T. gesneriana major; basal colouring white externally, blue-black internally, with a white dividing band. Its colouring is very clear and distinct.

Harry Veitch.—A glorious Tulip; stems pale green; petals very thick and broad; coloured a brilliant dark crimson, white near the base externally, furnished with a coal-black disc internally, and edged with a broad band of white from which several horns or rays of white project to the middle of the segments. A bold Tulip 2 feet high, very brilliant and refined.

Hecla.—Stems 2 feet high; flowers coloured black maroon; perfectly self throughout, but not quite so dark as La Tulip Noire, but larger and bolder; may be described as the best of the sombre-coloured Tulips for general purposes.

Hippolyte.—Stems 2 feet high; flowers rich lilac, shading to a white base externally; inner base bluish grey, shading to a magenta tint near the middle of each petal; the reflexing margins are pale lilac; a giant Tulip often 3 feet high in good soils, and its flowers are very massive.

King Harold.—Stems 20 inches high; flowers ruby red externally, crimson internally; basal colouring a glowing black disc edged with a thin but clearly defined band of white; a very pretty flower, and a good garden plant; the petals rarely show traces of injury from the severest rainfall.

La Candeur.—Plant of medium size; flowers coloured creamy white, faintly spangled rose-pink externally, and a very faint flush of rose-pink occurs near the middle of each petal internally; a lovely Tulip.

La Tulip Noire.—A singularly coloured Tulip of medium stature; petals a dark purple-black; base quite black; the darkest coloured Tulip known to me.

Loveliness.—This is valued for its clear, colourless base; flowers pale rose, 5 inches across, on stems 20 inches high.

Marie.—A tall variety with very large flowers, purplish crimson externally, scarlet-crimson internally; the margins of the petals incurve, and they are much paler than the rest of the flower, adding greatly to its bright appearance; base coloured Cambridge blue.

Mart Capello.—Small-flowered form, coloured ruby carmine, the three inner petals alone having white margins low down; basal colouring a small blue-black disc.

Painted Lady.—Flowers of medium size, white flamed with heliotrope; the interior colouring is richer than the outer, and the petals spring at right angles from the stems, so that the flowers appear quite flat when fully expanded.

Phyllis.—Stems ruddy and strong; flowers pale lilac, shading to a white base internally, and flamed with rosy lilac externally; a delicately coloured Tulip of medium size, but the petals are too thin to withstand bad weather unharmed.

Ruby.—A very tall variety, with rich crimson, broad-petalled flowers, similar in colour to T. fulgens, and furnished with the blue base of T. gesneriana; its colour is quite dazzling in the sunlight.

Zephyr.—Stems 2 feet long; flowers heliotrope, very large, furnished with a white base internally and externally. It is a good self, not bleached or dull-looking, as in many

Darwin Tulips of this shade, and it stands bad weather well.

G. B. MALLITT.

(To be continued.)

CHRYSANTHEMUMS.

FOREIGN AND OTHER NOTES.

THE Italian National Chrysanthemum Society still continues to issue its neatly printed Quarterly Journal, which has now reached the twentieth number. Among other matter specially relating to the popular flower we notice a reprint of the latest revision of the lists of best varieties for various purposes, which is compiled every year by the Chrysanthemum section of the National Horticultural Society of France, the history and description of the Chrysanthemum, translated from the pamphlet published by the late M. Henri de Vilmorin shortly before his much-lamented death, a short note on dwarf Chrysanthemums, and an article relating to manures.

Le Chrysanthème, the official organ of the French National Chrysanthemum Society, reminds us of the forthcoming congress and show at Lille, which will be held on November 6, 7 and 8. The presence of English growers and amateurs is warmly invited, and, considering the short distance of that town from London, it is to be hoped that the invitation will be accepted by any who can spare a few days at that busy season of the year. The list of members is ever increasing, being now over 700. Great hopes are indulged in that the number may ere long reach 1,000. The society has in contemplation the issue of a catalogue of all varieties actually grown in France at the present time. A more useful work we can scarcely imagine, especially now that M. de Meulenens of Ghent has ceased to publish the one he used to compile a few years ago.

While speaking of catalogues we should much like to see the American society follow suit. During the fourteen years of its existence only one catalogue has been published by that society, and that was as far back as 1892.

Our own National Chrysanthemum Society will now, in the course of a few weeks, be in a position to issue a supplement to its Jubilee edition. The work is progressing rapidly, and as seven years have elapsed since the last publication there should be a good demand for the new work, which will contain the names of all the leading varieties put into commerce since 1896.

Another addition to the literature of the famous flower is promised by the French society. It will consist of a volume compiled by M. Chiffot of Lyons, on the subject of insect pests and diseases. Coloured illustrations will accompany the publication. M. Chiffot is a well known and competent authority on these matters, and has often contributed papers on the subject at the annual congresses of the French society.

The Chrysanthemum Society of America, after holding its first convention and show at Chicago last November, proposes to repeat the experiment on November 10—12 next at New York. Mr. Fred H. Lemon is the recently appointed secretary.

We have just received the record of the last year's convention and show at Chicago. It forms an interesting little volume of seventy-four pages, and contains a very full report of the proceedings, together with verbatim accounts of the papers presented to the meeting. A portrait of the society's president, Mr. Arthur Herrington, is given as the frontispiece. The principal papers are as follows: "American Chrysanthemums in England," by Mr. Harman Payne; "The Colour Scheme in Chrysanthemums," by Professor Cowell; "Border Chrysanthemums," by Patrick O'Mara; "Pompon Chrysanthemums," by John N. May; "Foreign Chrysanthemums in America," by E. G. Hill; "Hybridising Chrysanthemums," by Elmer D. Smith, and several others.

In the bulletin of the French Horticultural Society of London, recently issued, we notice several articles on Chrysanthemums by members. M. M. Madelin, who has resided in this country for

some years, writes on "Le Chrysanthème" and "L'Exposition de Chrysanthèmes à Londres." M. Attilio Scalarandia, son of the head gardener to the King of Italy, who was formerly President and one of the founders of the Italian National Chrysanthemum Society, contributes an article entitled "L'Exposition des Chrysanthèmes tardives." Both of these articles deal with the subject from the standpoint of intelligent young foreigners who are resident among us.

C. H. P.

TREES AND SHRUBS.
WEeping BEECHES.

OF the common Beech (*Fagus sylvatica*) there are several forms, more or less pendulous in growth, to which varietal names have been given, but the best of all is that known simply as pendula, a fine specimen of which growing in Messrs. Dickson's nursery at Chester is herewith illustrated. Though there is a certain

bours. The one purpose for which it stands out above all is to form a living arbour, which in the hottest days of summer affords a delightfully cool retreat from the sun's rays. For this a tall standard is absolutely necessary in order to give the requisite amount of head room, and to ensure this last the main branches, if they show too much of a drooping tendency, must be supported to the requisite height. A little trouble of this kind taken during the earlier stages will be well repaid in the future growth of the specimen, particularly if, as above stated, the formation of an arbour is the object aimed at.

Of other Weeping Beeches the best is the purple-leaved form, which, apart from the colour of the foliage, is in other particulars a counterpart of the preceding kind. The purple hue of the leaves, however, causes it when employed for an arbour to form a more darkened retreat than the ordinary variety. *Fagus sylvatica bornyensis* has the trunk somewhat erect, while the branches are distinctly pendulous. It is well worth growing for the sake of variety, but cannot be compared with the common kind.

Fagus sylvatica miltonensis is somewhat in the

still, practically unknown outside botanical establishments, many trees and shrubs worthy of the best positions in our gardens, from the distinctive elegance of their foliage and habits, or from the profusion with which they produce their attractive flowers. It is but natural that planters should be anxious as to the chances of successfully establishing and growing in Europe trees and shrubs coming from a country embracing such an unusual latitude, with a climate in its extreme north almost arctic, and in its most southern islands sub-tropical; with volcanic hills and mountains where rain falls pitilessly sometimes for days together, and plains but a few miles distant enduring in the summer months an almost torrid heat. That many of these trees and shrubs can be established and cultivated with success may be seen by the photographs and branches cut from specimens shown in the Hall. These trees were planted about 1880 on Kingston Hill, in Surrey, where for the past twenty years they have withstood winters of severity, and latterly summers of unusual drought. To the uncertainty of the suitability of some of the inhabitants of the forests of Japan to our climate must be added (as a reason

for their hitherto not having been more extensively planted) the time required for a full knowledge of a flora so rich and concentrated as that under consideration, due to the comparatively few years it has been possible to travel freely in all parts of the country. So rich is this flora that Professor Sargent has been able to place on record that, in ascending a hill near Sapporo in the northern island only 500 feet above the sea-level, he noticed forty-six species and varieties of trees and shrubs, and, within a radius of five miles of this hill, several others, in all sixty-two species and varieties, probably a larger number than can be found in any other similar area outside the tropics.

How many of these trees and shrubs are actually peculiar to Japan

will probably never be definitely ascertained, so largely have species introduced from China and Corea acclimatised themselves. In a general way this is well known, but having during the past summer had the opportunity of looking through several hundreds of dried specimens from the upper part of the Yangtze Valley sent by a representative of my firm, E. H. Wilson, I was much struck with the great number of trees and shrubs of which he had secured specimens, and which are also found in Japan. The argument one sometimes hears, that planting is not a hobby of the young, and that when its attractions become evident one is too old to plant and hope to live to enjoy the results, does not apply to many of the trees and shrubs of Japan, which flower in from ten to fifteen years after planting in this country, and attain in twenty considerable dimensions.

A warm corner or a gentle slope (preferably sheltered from the east), ample space, and reasonable care in planting are all that is required, and though severe frosts of May and June may in those seasons in which they unhappily occur cripple the flower or check the growth of a few of

WEeping BEECH IN THE NURSERY OF MESSRS. DICKSONS, LIMITED, CHESTER.



amount of individual variation, the general appearance of the tree is well shown. The most prominent feature is the irregular disposition of the principal branches, from whence the minor ones depend like living cascades, the whole in the case of a large specimen forming a huge mass of a rough and rugged outline, which in winter, when devoid of foliage, or clothed with its tender green leaves in spring, as well as in autumn, when they assume their warm russet tint, is equally beautiful. From its naturally pendulous style of growth this Beech to be seen at its best needs to be grafted at a good height, otherwise many of the branches lie on the ground, and a great deal of the beauty of the plant is lost. Like all trees of a very pronounced character, the Weeping Beech should not be indiscriminately planted here and there, but the position assigned it should be well considered. It must occupy a more or less isolated position, as if situated like the specimen shown its handsome yet uncommon features can be seen at their best, whereas if closely associated with other trees a good deal of its beauty is lost, and it is in addition quite out of harmony with its immediate neigh-

way of the variety pendula, but the branches are less decidedly pendulous, having in many instances more of a horizontal tendency. *Fagus sylvatica remillyensis*, like the variety bornyensis, is of Continental origin, and is seldom met with in this country. The branches are markedly pendulous, but as far as I have seen it is one of the least desirable of weeping Beeches. Still, in a collection it affords variety.

Apart from the question of ornament the Beech thrives better than most of our forest trees in light sandy soil, a remark which applies equally to the weeping forms. At Kew, for instance, where the major portion of the soil is of a light sandy nature overlaying gravel, the major portion of the trees are Beech, and among them many fine specimens are to be found.

T.

SOME LESSER-KNOWN JAPAN TREES AND SHRUBS.

ALTHOUGH now nearly forty years since the flora of Japan first received serious attention from the gardeners of Europe and America, there are

the trees, the danger is not sufficient to deter planters.

Amongst the Maples the forms of *Acer palmatum* and *A. japonicum* are in general cultivation and hardly require mentioning; but such distinct species as *A. carpinifolium*, *A. distylum*, *A. nikoense*, *A. Miyabei* (recently found, and only named by Maximowicz in 1888), are hardly ever met with, nor are either, as much as they should be, *A. diabolicum* (pulchrum), *A. pictum*, *A. crataegifolium*, *A. rufinerve*, and *A. capillipes*, common species in Japan, and long introduced to Europe.

A. carpinifolium is evidently extremely rare in Japan, as is *A. distylum*; of the first-named, during a stay of several months, I only saw three trees.

A. nikoense is more common and is widely distributed, and though bearing the name of the beautiful district in which it was first found, is, I think, undoubtedly of Chinese origin. The peculiar thick ternate leaves—silvery beneath, and in autumn of a vinous red on the upper surface (unlike those of many trees, coloured on both sides)—coupled with its vigorous habit, render it a remarkable tree.

A. carpinifolium (the Hornbeam-leaved Maple), first discovered by Siebold, is a most striking and interesting species peculiar in the form and veining of its leaves, and, unless seen in fruit or flower, closely resembling a Hornbeam at first sight.

A. distylum is in this country a noble and handsome tree, producing foliage of great size, in colour rich and glossy. Like the two last-named, it was introduced to gardens by Maries, has proved hardy and vigorous, and superior to some species and varieties in common cultivation.

A. Miyabei, resembling our *Acer platanoides*, has been known to science but a few years. It has successfully withstood the last five winters in this country, and promises well. Coming from the north island, it is accustomed to cold more severe than any experienced here, and at the same time to warmer and brighter summers. A rare tree in Japan, it may be in a few years' time, by its vigour and health, more plentiful in Europe than in its native home.

The only known Japanese Horse-Chestnut, *Æsculus turbinata*, though it has fruited in France and flowered in England, is hardly known as much as a tree so noble deserves to be. In general aspect it closely resembles our well-known species, but is remarkable for its fruits, which are about 2 inches in diameter, and lack the prickles distinguishing the true Horse-Chestnuts.

JAMES H. VEITCH, F.L.S.

(To be continued.)

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ORCHIDS.

NEW CATTLEYAS AT THE WOODLANDS.

IN this grand collection the latest novelty is bred from *Cattleya gaskelliana* and *Cattleya guttata Leopoldii*, and is a very handsome plant. The flowers are almost as large as those of *Cattleya Atalanta*, to which it bears some resemblance, but has a more refined appearance than that hybrid. The flowers are of a warm shining rose, and possess

labellum is of a beautiful deep purple-crimson, nearly flat in shape, and folded or fluted, somewhat resembling *Cattleya guttata* var. *Prinzii*. The lobes are of a clear rose on the outer surface, and creamy white with a suspicion of delicate rose on the inner. The flowers are of perfect shape, and the cross makes both a novel and beautiful new *Cattleya*.

At the time of the writer's visit the handsome *Cattleya Fowlerii*, one of the best of hybrid *Cattleyas* (a cross between *Cattleya guttata* var. *Leopoldii* and *Cattleya hardyana*), was in bloom, a grand example, carrying a splendid mass of blossoms. The sepals and petals are of a rosy lilac, and the front lobe of the lip of a rich glowing crimson-purple. The combination of colour in this hybrid is such that it can be classed amongst the showiest and most beautiful of hybrid *Cattleyas*.

One of the prettiest sights I saw at The Woodlands was a houseful of the lovely *Cattleya Harrisonae* in full blossom, the colours of the varieties flowering ranging from the palest rose to the richest of violet-reds. The pure white form also must be included in those which were in flower, the finest variety of which is in this magnificent collection. Altogether this fine houseful of plants made one of the most charming sights imaginable.

ARGUTTS.



LÆLIA IONA SOUTHGATE VAR. (Natural size.)

(Shown by Messrs. Stanley, Ashton, and Co., Southgate, London, and given an award of merit, R.H.S., on the 13th ult.)

LÆLIA IONA SOUTHGATE VAR.

WE are very pleased to illustrate a beautiful variety like this. It was exhibited before the Orchid committee of the Royal Horticultural Society on the 13th ult., when it was given an award of merit. It is a beautiful flower; the sepals are rich rose, and the undulated lip is intense crimson. It was one of the good things shown by Messrs. Stanley, Ashton, and Co., of Southgate, London, whose collection of Orchids is

well known. Of the Orchids shown at that meeting none was richer than *Lælia Iona*.

THE ROSE GARDEN.

THREE BEDDING ROSES OF BRIGHT COLOURING.

IN Corallina, General Schablikine, and Comtesse Festetics Hamilton we have three splendid Roses for bedding or massing. Corallina is unquestionably the best of the three. Its lustrous vigour, brilliant coral red buds opening out to large-petalled, salmon-tinted blossoms are superb, and produce a grand effect. The strong secondary growths which come up from the base of the plants yield enormous

great substance, the sepals and petals being wholly of this exquisite colouring. The labellum, however, is the most striking part of the flower, the front area being of a rich rosy crimson as well as the lobes, which are of the same shade, the column and remaining part of the labellum being snow white and very deeply cleft. There are primrose-yellow markings on the labellum in front of the column and extending towards the base. The colours of rose, white, and yellow are beautifully blended in the labellum, which makes this part of the flower extremely fascinating.

Cattleya × *H. Hannington*.—This new natural hybrid has much of the character in size and shape that one might expect to find in a cross between *Cattleya Harrisonae* and *Cattleya guttata* var. *Prinzii*. The colour of the sepals and petals is of a pleasing reddish rose, studded all over their surfaces with rich chocolate-crimson spots. The

clusters of buds, and it is these growths that are so freely produced that gives the fine autumn blooming character to this and similar Roses. In General Schablikine the growth is denser and somewhat more spreading than in Corallina. It produces a beautiful bud, smooth, well-shaped petals, and there is a peculiar trait in the variety, many of the buds having one, and sometimes more, very pale petals, forming a remarkable contrast to the coppery rose colour which predominates. The expanded flowers are rather flat, more double than those of Corallina, but not so handsome in the half-open stage, and the whitish tinge that pervades the open blossom somewhat detracts from its brilliancy. Comtesse Festetics Hamilton is, in the expanded stage, perhaps the most beautiful of all. There is a charming coppery tint merging to madder or Turkey red, which I have not noticed in any other Rose. If variety is desired and yet a good effect, all three sorts could be planted in one large bed, placing Corallina in the centre, followed by General Schablikine and edged with Comtesse F. Hamilton. I would advise somewhat close planting if the best colour effect be desired. Eighteen inches apart seems close, but not too much so, although 2 feet would do. I am convinced that it is the wisest plan to prune these Roses hard unless one is so situated as to be able to laugh at spring frosts. Those who pruned hard this spring are now reaping their reward in an abundant blossoming.

ROSE GRACE DARLING.

THIS Hybrid Tea is so vigorous that one could easily form a 4-foot hedge of it, and its hardiness is sufficient recommendation to all who are in search of a Rose that can be readily cultivated. Perhaps in June we see Grace Darling in its most superb colouring, the lovely yellow shading which suffuses the peach colour that predominates producing an indescribable effect. We have also a Rose of perfect form, wanting, perhaps, in stiffness of stalk, but it is abundantly free-flowering, and mildew does not trouble it. Where a large bed is planted with this Rose it is an excellent plan to partly bend over some of the growths, and flowers will appear all over the shoots. Some galvanised iron pegs with looped ends are as good as anything for this purpose. These are let well into the ground, and tarred twine is used to bring down the shoots to the required angle. It is not necessary neither is it advisable to bring down the growths quite horizontally. If bent over 1 foot to 2 feet from their perpendicular position is sufficient, and well answers the purpose. Grace Darling makes a splendid standard, differing in this respect to the somewhat stiff form of many of the Hybrid Perpetuals. Under glass, especially in strong heat, this Rose develops a wonderful fresh colouring. I am glad to see that raisers are striving to obtain novelties with the hardiness and vigour of this Rose, and there can be no doubt that the days of weakly growers are numbered.

ROSE ALBERT FOURES.

A WORSE-SHAPED Rose from an exhibitor's point of view it would be difficult to find, yet I am persuaded there are a number of individuals that enjoy beautiful colours rather than form, who would be glad to possess this charming variety. The yellow colour is heavily shaded with peach and orange, so that at first sight the peach colour prevails, but on closer inspection the yellow tint is seen to be very pronounced.

ROSE FRANCOISE CROUSSE.

THIS is a splendid acquisition to the red climbing Tea-scented Roses. The buds are long and tapering, which makes the variety a most valuable one for cutting, apart from its brilliant effect on a wall. The colour is quite a fiery scarlet-crimson, certainly the best high-coloured climbing Tea Rose we have. It appears also to bloom well. The flowers, which are produced at the end of the long growths, come in clusters of from five to eight. Until we have a climbing sport of Liberty this variety will supply

a long-felt want. Though it is scarcely so rampant as Reine Marie Henriette, the growth is sufficiently vigorous for any ordinary wall.

ROSE MME. PIERRE COCHET.

THIS is one of those delightful golden yellow Roses that never fail to charm. Although placed among the climbing sorts, I think its most useful stage is rather as a strong bush, or better still as a half-standard. On the Hedge Briar the variety makes a splendid large head, but more compact in growth than many of the climbing sorts grown in a similar way. Just now such plants are yielding a number of the elegant buds which are of far better shape than those of W. A. Richardson. Mme. Pierre Cochet is often described in catalogues as golden-yellow, shading off to yellowish white. My experience has been that the buds are of the golden yellow colour throughout. Why described as a Noisette I cannot imagine. It is quite as much a Tea Rose as Mme. Falcot.

PHILOMEL.

ROSE FELICITE PERPETUE.

It is almost needless to write a word about this beautiful Rose—at least it should be so, for everyone who has a garden ought to have it clustering in some corner, for the good reason few varieties are so hardy and free and beautiful in all ways. It is also more "perpetual" than many climbing Roses—Félicité Perpetue belongs to the Multiflora race—that is, it keeps up a scattered succession of flowers during the summer, though I cannot understand why Rose growers call their flowers perpetual at all when at the best certain varieties only bloom from June till October, given fine autumn weather. Félicité Perpetue, with its wealth of white bloom, is a delight in the garden. I have planted much of it against old orchard trees, and am rather sorry for the trees, the Rose is so rampant and leafy. I fervently hope raisers of new Roses will strive and get an autumn-flowering race of climbers, such as Aimée Vibert. I happened to be away from home when the single Roses were in beauty.

VIATOR.



ROSE FELICITE PERPETUE. (From a photograph by Miss Willmott.)

GARDENING OF THE WEEK.

INDOOR GARDEN.

FUCHSIAS.

EARLY in September take cuttings from the young growing shoots of such varieties as it is desirable to increase. Any plants from which cuttings are wanted, and that have not produced suitable wood, should have all the flower-buds picked off and be placed in a warm-growing atmosphere to encourage young growth. Cuttings should be inserted in small pots filled with soil composed of equal parts of light loam and leaf-soil sifted through a $\frac{1}{2}$ -inch mesh, with a little sand added and pressed firmly into the pots and surfaced with silver sand. If placed on a spent Melon bed in a frame, which must be kept close and shaded in bright weather, they will root very quickly. It is desirable to syringe them lightly two or three times a day during dry weather should they drop much. As soon as rooted put them into small pots singly in a close frame or pit, and if grown on in a light warm house through the winter they will by the spring make plants suitable for any purpose. Prepare a dozen or two plants of a free habit of growth for training up rafters. If selected of dissimilar colours these make very attractive objects, and flower all the summer.

CHRYSANTHEMUMS

that were planted out on a screened border with the view to being lifted and potted up a little later are, in consequence of the wet, cold season, in a very unsatisfactory condition. These should be lifted and potted up at once, and placed in a vinery or Peach house where the fruit is all gathered. If kept syringed until they have recovered from the effect of the lifting they will produce better results than if left out any later. *Salvia splendens* and variety that may have been planted out for winter flowering should now be potted up and placed under glass.

CALCEOLARIAS.

As many of these as are required should have been pricked off some time ago, and the most forward plants may now be potted into 3 inch pots, a compost of loam and leaf-soil in equal parts, with some coarse sand and crocks broken up rather fine, but not sifted, suiting them. Cold frame treatment must be continued, keeping the plants well up to the glass, and until they are established ventilate the frame carefully. Keep a sharp look out for slugs, which evidently regard the young plants as a delicacy. These, together with *Cinerarias* and *Primulas*, are this year much later than usual, and consequently require closer attention.

CARNATIONS

intended to flower through the winter, if not already under glass, should be placed in a cool house, and, except the earlier batch, may have the points of the strongest shoots pinched out.

ACHIMENES, GESNERAS, AND TYDÆAS.

As these pass out of flower they should be placed in a light, dry house, where air can be admitted freely, giving them sufficient water only to prevent the foliage from drying off prematurely, the object being the thorough ripening of the tubers. *Griffinia hyacinthina*, the flowering of which depends largely on the ripening of the bulbs, requires somewhat similar treatment, the ripening process being more protracted.

Wendover.

J. JAKES.

FLOWER GARDEN.

PROPAGATING BEDDING PLANTS.

THIS important work must be pushed forward without delay. The completion of the stock of zonal *Pelargoniums* should be the first consideration. Late cuttings of these either fail to strike or make so little root action that they are troublesome to keep through the winter, and make but poor plants for planting out in the spring. After the heavy rains we have had the cuttings will be

very sappy. They should therefore be allowed a little time to dry before insertion. At this date cutting boxes should, if possible, be placed under lights so fixed that they will throw off the rain, as it will not do to let them get saturated with wet. Ivy-leaved *Pelargoniums* are better left until rather late in the season before taking cuttings. These will root readily enough, and do not begin to run until the winter is past. By this means we get better plants for boxing or potting off, and they are also better for planting out into their permanent quarters. Cuttings of such things as *Heliotrope*, *Verbena*, *Coleus*, *Alternantheras*, and *Fuchsias* will need artificial heat. A moderate hot-bed should be made up of stable manure and leaves, and allowed to cool slightly before being put into use should there be a half-spent bed at hand from which something else has been discarded. Such a bed comes in very useful at this time of the year for many things besides those mentioned. A few stock pots of *Ageratum*, *Cuphea*, and *Salvia fulgens*, where these plants are in favour, should be struck. They are easily wintered in any dry place and where frost can be excluded. *Mesembryanthemum cordifolium* variegatum needs different treatment to most things struck from cuttings. It will not stand a close, moist atmosphere, and does not require shade. It will strike best in cutting pots of very sandy soil placed on a shelf in an airy and light house.

CIMICIFUGA JAPONICA.

This grand autumn-flowering plant is having a good time of it. I never saw the plants in the herbaceous border look more promising. The late rain with the hot, humid atmosphere suits them well. These should now have a good soaking of liquid manure to hasten on their flowering season, as we sometimes get frost towards the end of October. This cuts them off in the height of their beauty.

T. B. FIELD.

Ashwellthorpe Hall Gardens, Norwich.

KITCHEN GARDEN.

CABBAGE.

THE ground should be prepared for planting out the main spring crop. Assuming that the main crop Onions are sufficiently ripe for lifting, this plot would be a good one for the Cabbage, and if it were heavily manured and deeply dug or trenched for the Onions no more will now be needed. A good dressing of soot or wood ashes or both should, however, be given and the ground dug a spit deep. To avoid a too-rampant growth the ground must be well trodden. Over-luxuriance in the plants before winter makes them susceptible to injury from sharp frosts and snow. If the ground intended for the Cabbage bed has recently carried an exhaustive crop and is impoverished it should, of course, receive a rather heavy dressing of stable manure, as well as a dusting of soot before digging. After treading and raking level shallow drills should be drawn. The distance the rows are apart must be regulated by the variety grown. For large Cabbage, such as *Flower of Spring*, they should be 2 feet apart and 18 inches from plant to plant, whilst for the smaller kinds 18 inches by 15 inches will suffice. Dibble the plants carefully into the drills and give a good watering to settle the soil about the roots. Watch closely for grubs, or, as they are more commonly called, leather jackets. They are very destructive, as they eat off the plants just below the surface. By going over the bed once in two or three days it will be seen where the grubs are at work. They should be searched for and destroyed and fresh plants put in. Any neglect in this matter often results in a patchy bed in spring. Some plants should be pricked out on a sheltered border for filling up gaps next February or March.

HARVESTING ONIONS.

On the proper ripening and drying of the bulbs depends in a great measure their keeping qualities when stored. As soon as the tops turn yellow and fall over the bulbs should be pulled with the hand and laid in lines on their sides, turning them carefully every other day if fine. Should the ground be required for another crop at once the

Onions may be lifted and carried to any spare plot of ground for maturing, or in the event of wet, dull weather prevailing they may be laid in pits or frames and the lights kept over them, but admitting air freely both top and bottom to ensure free circulation. Care should be taken not to bruise the bulbs in moving them from one place to another.

CELERY.

Much attention will be required at this season in earthing up the plants as they become large enough. In the first place all side shoots and weeds must be cleaned off, and see that the plants are well supplied with water before any earth is placed against them. The foliage must be dry and the stems of each plant gathered together and held firm by one pair of hands whilst another places the soil carefully against it with the spade. It should then be well pressed with the hands. Let the work be done piece-meal, i.e., do not place too much soil round the stems at one operation. By banking up the plants too early autumn rains are prevented from reaching the roots at the time when they would be of inestimable benefit.

Stoneleigh Abbey Gardens.

H. T. MARTIN.

FRUIT GARDEN.

AUTUMN TREATMENT OF FRUIT TREES UNDER GLASS.

I BELIEVE it may be safely asserted that many cultivators overlook the necessity for closer attention to the requirements of various kinds of fruit trees and Vines after the crops have been perfected. For several seasons I have been paying close attention to this important subject, and, after various experiments, have arrived at the conclusion that it is impossible to grow really fine fruit on trees that have been much neglected any time from the fall of the leaf to the flowering season again; in other words, that more depends upon the size and perfect formation of the bloom buds than we, as a rule, are aware of. According to my experience, the size and shape of the future fruit is more determined by the autumn treatment of the trees or Vines than by the treatment given when the fruit is swelling off. Large and perfect flowers, or bunches of flowers, may, with ordinary good treatment, be grown into large and perfect fruit or bunches of fruit as the case may be, but undersized or malformed blossoms cannot by any treatment be grown into full-sized handsome fruit. If any proof of this is required, I need only direct your readers' attention to the state of many Apple, Pear, and Plum trees this season. Where the strongest and best-formed flowers escaped destruction by frost, there are to be seen fair crops of fine, well-shaped fruit, but where these were destroyed, the small, late, and in many cases imperfectly formed blossoms were followed by corresponding inferior fruit. A superficial observer might naturally form the opinion that a strong, healthy fruit tree with only a small quantity of fruit set, would swell these to a great size, but no such thing occurs, unless, indeed, such fruit resulted from the best-formed flowers. To a certain extent Dame Nature determines the quantity of our outside fruit crops, but the case is very different under glass, as here we are in a position to be more independent of climatic changes, and if we fail to grow good fruit it is usually our own fault.

Grape Vines, Peach, Nectarine, and Fig trees in particular, should never be allowed to become dry at the roots, as a few days neglect in this respect may be most detrimental to the next year's crops. Not only should all these be kept regularly supplied with water, in order to ensure a perfect formation of buds, but they should also be given liberal supplies of liquid manure, thus assisting the trees or Vines to recoup their strength after the exhaustive maturation of the crops. In most cases the root action is going on more briskly after, rather than before, the cessation of active top-growth, the whole aim, if I may so put it, of the plant being to store up as much food and to produce as many fibres as possible to begin active life with afresh the following season. If then, we allow the foliage to become badly overrun with spider and other pests (these oftentimes being the natural

consequence of neglect at the roots), and do not encourage the formation of plenty of fibres, we seriously injure our future fruit prospects. Many complaints are annually heard of the Peach and Nectarine trees under glass dropping a greater portion of their blossoms in the spring, and in most cases this is entirely due to either extreme poverty or dryness at the roots during the autumn and early winter months, or else very loose borders. We are not all in a position to easily flood our borders with water, but most of us can contrive to give frequent and moderately heavy soakings and that is all that is necessary. The less water available the more need for frequent applications. This, at first sight, may appear inconsistent, but I find that if we anticipate dryness, a moderate supply of water is sufficient to thoroughly moisten the whole border, whereas, when once a border gets thoroughly dry, it requires a great amount of water to moisten it again, and much runs away without doing a proportionate amount of good. After our trees have been cleared of fruit, the borders are cleared of the litter mulching, we have the surface very lightly broken up with a fork to prevent cracking and they are given a good soaking with diluted farmyard liquid manure.

Madresfield Court Gardens.

W. CRUMP.

ORCHIDS.

MANY plants are now in various stages of growth, and will be approaching maturity. It will therefore be necessary to look through the various homes and note each species, and give the treatment best suited to their requirements.

In the Phalaenopsis, stove Orchid house, warm and cool Cypripedium houses, the majority of plants will be growing freely, and must receive every encouragement to do so. Maintain a nice moist and growing atmosphere. Such plants as *Celogyne dayana*, *Cypripedium insigne*, and other strong growing kinds should be watered occasionally with weak liquid farmyard manure. *Celogyne massangeana*, *C. swaniana*, *Deudrochilum filiforme* and others that have finished must be kept slightly drier at the root. The *Cynoches* and *Catasetums* will need sufficient water only to keep them plump and healthy, with the exception of the *Catasetums* that have flower spikes, which should be moderately watered until the flowers are removed. When the leaves have fallen, they should, with the *Cynoches*, be placed in a light position in the *Cattleya* house and little water at the root will be needed.

DENDROBIUM HOUSES.

Dendrobium wardianum, *D. crassinode*, *D. thyrsiflorum*, *D. Farmeri*, *D. suavisimum*, *D. chrysotoxum*, *D. aggregatum*, and others that have finished growth should be given more sunlight, air, and less moisture in the atmosphere with a slightly cooler temperature, in order to ripen the pseudo-bulbs as well as possible. Others that have not finished must be kept in the same hot, moist, and growing temperature. Plants that have finished one bulb and are making new growths should, if required to bloom, be treated as recommended for resting plants. If the flowering is of less importance than increasing the stock allow them to remain in the hot house and properly finish as many bulbs as possible. *Cyrtopodium Andersoni*, *C. punctatum*, and variety *St. Legerianum*, if grown in this house and growth is completed, should be placed at the lightest and coolest end of the house, or given a light position at the warmest part of the *Cattleya* house. Gradually reduce the water supply unless they have become deciduous when little will be required.

CATTELEYA HOUSES.

Cattleya gigas, *C. Rex*, *C. gaskelliana*, *C. Forbesii*, *C. Loddigesii*, *C. guttata*, *C. granulosa*, *Lælia digbyana*, *L. elegans*, and others that have finished growth should be placed in the lightest, coolest, driest, and airiest part of their respective houses, and water given at the root in quantity according to the plumpness of the pseudo-bulbs. *Lælia purpurata*, *L. tenebrosa*, *Cattleya Lawrenceana*, a vast number of hybrid *Cattleyas* and *Lælio-Cattleyas*, *Zygopetalums*, *Sobralias*, and other plants growing freely must be treated

according to their condition. The last named should be occasionally watered when growing with weak liquid farmyard manure.

MEXICAN HOUSES

The Mexican *Lælias* should be prayed over on bright days only, with liberal applications of water to the root until growth is complete, after which much less will be needed, except those with flower spikes, which must not suffer for want of it until they have passed out of bloom. *Odontoglossum citrosum* and other growing plants must be moderately watered and have every encouragement to fully develop their growth. *Celogyne cristata* will need an abundance of water, with weak liquid manure, at the root until the bulbs have fully developed. *Odontoglossum-læve*, *Anguloa Clowesii*, *A. Ruckeri*, *A. uniflora* and other plants inactive must be kept on the dry side.

COOL INTERMEDIATE HOUSE.

Many inmates of this division have not yet completed their growth, therefore water should be given according to their requirements, and the same general treatment carried out. Such strong growing plants as *Celia macrostachya*, *Cymbidium Lowi*, *C. Lowio-eburneum*, *C. Eburneo-lowianum*, *C. tracyanum*, and *C. gammianum* will be benefited if watered with weak liquid manure until growth is finished. *Oncidium Mantinii*, *O. Forbesii*, and others that have their bulbs made up will need less water, but those with spikes must not be allowed to become very dry at the root.

GENERAL REMARKS.

All plants should now be given as much sunlight as they are able to stand. The Mexican *Lælias* and *Dendrobiums* will need little shade, and this only in the lightest of houses for a short time on bright days. The blinds on the *Cattleya* houses should not be lowered until really necessary to prevent scorching or turning the foliage yellow, and pulled up as early as possible in the afternoon. The *Phalaenopsis*, *Cypripedium*, cool intermediate and *Odontoglossum* houses must be shaded on bright days for some time to come, yet here a little sunlight, when not powerful, will be beneficial even to these. Where blinds are used all permanent shading should now be removed. In all departments less atmospheric moisture will now be necessary, especially where it is important to ripen the pseudo-bulbs.

F. W. THURGOOD.

made, to take the form of his portrait. This is an oil painting by Mr. Chas. Wynn Ellis. It is an excellent likeness of Mr. Smith, and a high-class work of art. The presentation took place in the presence of most of the subscribers on the occasion of the annual exhibition of the society at The Grange, by the president for the year, Mr. Tresham Gilbey, in a few well-chosen words. Mr. John Barker and Sir Walter Gilbey, Bart., also alluded to the valued services of their late honorary secretary in giving so much of his time to the work of the society. In thanking the subscribers for their kindness, Mr. Smith alluded to the work done in the past, and he was still willing to aid the society by his advice and help as far as he was able in the future, and the very pleasant function terminated with thanks to the artist (who was present) for his admirable work.

J. DOUGLAS.

THE INDOOR GARDEN.

ZONAL PELARGONIUMS.

WHAT a contrast these usually brilliant flowering plants present just now at Chiswick. Outdoors are many plants in beds, and almost as many varieties. They make a poor show. But close by in a span-roof greenhouse is a display in pots,

double and single, of singular brilliancy. Could plants in beds outdoors be induced to bloom as these do in pots under glass the effect obtained would be startling. Generally, zonal Pelargoniums are not seen in good form this season. Essentially warmth loving, they lack the sunshine needful to produce the quantity of flowers seen in pot plants under glass. Abundant rains and leaden skies do not suit them, except to produce coarse growth and leafage in abundance. Begonias do so much better as damp weather plants. Outdoors zonal Pelargoniums, however, do give great compensation in the winter, as their well-prepared plants in pots give rich profusion of bloom and colour of the most

brilliant description. It is a pity that the zonal Geraniums are not more grown by amateurs for their winter flowers.

A. D.



MR. WILLIAM SMITH.

WORKERS AMONG THE FLOWERS.

MR. WILLIAM SMITH.

MR. SMITH is well known as an ardent florist amongst the members of the National Auricula Society, but it is not generally known that our good friend has been honorary secretary of the Bishop's Stortford Horticultural Society for the long period of thirty-three years. Acting on medical advice, Mr. Smith has been compelled to resign his position in connexion with the society, and the committee could do no other than accept his resignation. The principal inhabitants of the town and neighbourhood felt that Mr. Smith's long and valued services should be recognised in a substantial manner. It was ultimately decided that a presentation should be

THE MOST USEFUL PALMS.

PALMS were very popular for various purposes on the Continent long before they became generally used in this country; indeed, the almost universal demand for them here which now prevails dates from the period of the Franco-German War, when so many of the richer class of those countries sought shelter in England, and naturally brought with them their taste for such plants as Palms and Bromeliads. The last named were never grown to any great extent, but Palms from that time increased in popularity year by year, and now some are grown almost by the acre, and disposed of for various decorative purposes, being welcomed in the palace of the prince as well as in the most humble cottage.

There are a great number of Palms in cultivation, but those principally grown are comparatively few. Of the others some require special treatment, others are too slow in growth, while some are not suffi-

ciently ornamental. In any selection the first place must be given to the

Kentias, especially *K. belmoreana* and *K. forsteriana*. The first named is the dwarfier and more finely divided of the two, hence it is particularly sought after in a small state, but the larger and bolder fronds of *K. forsteriana* render it in the shape of large plants more effective than the other. The dwarf growing *K. sanderiana* forms delightful little specimens in 5-inch pots. A well-furnished plant will stand about 15 inches high, each frond having nearly a couple of dozen pinnae, alternately arranged in two opposite rows. These pinnae are about one-third of an inch wide and 8 inches to 10 inches long, so that the frond is broader in proportion to its width than in most Palms of this class. A notable feature is the production of young shoots from the base of the plant, and the axils of the bottom leaves. For table decoration this *Kentia* has of late become very popular. Of the species referred to *K. belmoreana* and *K. forsteriana* will grow in a greenhouse, while *K. sanderiana* needs the cool end of the stove or an intermediate house.

Arecas.—Of the many *Arecas* that are in cultivation *A. Baueri* from Norfolk Island, and *A. sapida* from New Zealand, will thrive in a greenhouse, while *A. luteocens*, though a native of Madagascar, will keep in health for a long time in the warmest end of the greenhouse, but it will not grow much under these conditions. Before the *Kentias* were introduced this was one of the most popular of decorative Palms.

Chamærops.—One species of this genus, viz., *C. excoelsa*, known also as *Trachycarpus excoelsa*, a native of China and Japan, is one of the hardiest of all Palms, and large specimens that have withstood the winter for many years outside may be often met with. A pretty little fan Palm is the South European *Chamærops humilis*, which when established produces several offsets from the base of the plant. The leaves are clothed when young with silvery scales, which to a great extent disappear with age. It is quite a greenhouse Palm.

Cocos.—An extensive genus, the most valuable for decorative purposes being *C. weddelliana*, which, though a native of Brazil, will grow in a lower temperature than is generally supposed. It will make more rapid progress in a stove, but grows well in an intermediate temperature, or even in a greenhouse; indeed, I have had one for four years in a dwelling-house, and it is now a picture of health. Overpotting must in the case of this *Cocos* be strictly guarded against.

Corypha australis.—One of the fan Palms, with spiny leaf-stalks, and a hard, unyielding style of growth. Its great merit consists in the fact that it is less affected than most Palms by cold, harsh draughts, hence for corridors and such places it is much appreciated.

Daemonorops.—Palms that will grow freely in a stove temperature, but they will only stand in the greenhouse during summer. The fronds are much divided, and a well-grown specimen is very handsome. Their nomenclature is greatly confused, but *D. fissus* and *D. palembanicus* are two of the best.

Geonoma gracilis.—Somewhat like *Cocos weddelliana* but far more graceful. It is extremely handsome in a small state. The cultural requirements are the same as for *Cocos*, except that I cannot induce the *Geonoma* to thrive in a dwelling-house.

Latania borbonica.—This fan Palm was very popular at one time, but of late years it has not been so much in demand. It is a native of China and Japan, and may be grown in the greenhouse.

Licuala Muellieri.—A comparatively new Australian Palm that seems likely to be valuable for the greenhouse. The roundish fronds are in a young state at least split up into several segments. The colour is a bright green, veined with a deeper tint.

Phoenix.—Considerable interest is centred around the Date Palm (*Phoenix dactylifera*), but it is not worth consideration for decorations. One of the hardiest and most useful of all is *P. canariensis*, which for conservatory decoration or for placing outside during the summer is unsurpassed. *P. reclinata* from South-East Africa is also very useful,

while perhaps the most handsome of all is *P. rupicola*, but for this stove or at least intermediate house treatment is necessary.

Rhapis flabelliformis.—This Palm pushes up numerous suckers, so that in time it will form a mass of stems. It is handsome either in this way or with a single shoot, for the leaves are always very graceful. A greenhouse temperature meets its requirements. A miniature form known as *R. humilis* is a charming plant, but rare.

Seaforthia elegans.—Before the *Kentias* were introduced this was much grown, but, except as large specimens (trees in fact), the *Seaforthia* now occupies second position.

The nomenclature of Palms has undergone such a change of late that I have herewith referred to them under the names by which they are generally known.

(To be continued.)

NURSERY GARDENS.

MR. ANTHONY WATERER,
KNAP HILL, WOKING.

KNAP HILL NURSERY is widely famous for its Rhododendrons, and a visit here in Rhododendron time is full of interest. The long drive, bordered on either side by huge masses of Rhododendrons in flower is a wonderful sight. It may safely be said that in its way it is unique in this country. The profusion of the plants at Knap Hill is remarkable, and after seeing how vigorously the Rhododendrons grow and how finely they bloom, one wonders no longer at the reputation of the Knap Hill Nursery for these plants. Not only are the plants good, however, but Mr. Anthony Waterer is especially careful to grow only the best varieties. Those that receive Mr. Waterer's commendation may be relied upon to give satisfaction in the garden, they are good garden plants. Mr. Waterer's standard of a good Rhododendron is very high, not only must the growth and hardiness of plant, size, form, and colour of flower be satisfactory, but the trusses of bloom must be erect, must look one in the face as it were, and this is what he strives to obtain in all the varieties originated at Knap Hill. A Rhododendron loses its value as a garden plant when the flowers droop so that one is unable to see them without holding them up.

There are numerous beautiful varieties at the Knap Hill Nursery that Mr. Waterer will not send out simply for the reason that the trusses of bloom are loose and the flowers droop. There are also many more that do come up to Mr. Waterer's standard and these are largely grown. Rhododendrons are everywhere. On either side of the long drive previously mentioned there are acres of them, bush plants in various sizes chiefly, with standards here and there. The standard Rhododendron is much more handsome than most plants in standard form, especially when they attain some size. In the centre of beds in the shrubbery, and even as a specimen lawn plant, they are most effective. We saw many plants of seedling Rhododendrons still unnamed, that were the results of years of careful hybridisation, and some of them, doubtless, will make a name for themselves before long, for they have all the characteristics that distinguish a good variety.

It would serve no good purpose to mention numerous varieties, and although it is difficult to individualise, we would particularly note Mrs. Samuel Simpson, rich orange and purple, a lovely flower; Mrs. Anthony Waterer, probably the best white, the beauty of the white flowers is accentuated by the rich yellow blotches on the petals; and Michael Waterer, a very fine crimson. The original plant of Rhododendron catawbiense, about 12 feet high and 15 feet through, as in the Knap Hill Nursery, this, and a huge bank of the variety *Album elegans*, some 15 feet high, are perhaps, the most remarkable among many grand Rhododendrons. Azaleas, too, are largely grown at Knap

Hill, and at the time of our visit some traces of their gorgeous colouring still remained. They, however, have not been so good this year on account of the cold ungenial spring. The Knap Hill Azaleas are famous the world over for the wonderful colouring and shape of the flowers. Equally as remarkable as the Rhododendrons, however, are the trees and shrubs. The Nursery contains some grand old specimens of, for instance, *Fagus antarctica* (the evergreen Beech), *Vitis Thunbergii*, *V. parviflora* (20 feet high), golden Spanish Chestnut, Fern-leaved Beech, variegated Beech, and Willow-leaved Oak.

Never have we seen such a splendid lot of golden Yews, plants varying in height from 4 feet to 10 feet were perfect in form, density of foliage, and rich colouring. Several acres are planted with golden and variegated conifers alone, and all are of the richest colouring. The golden Yews were especially fine, we have never seen them better coloured. Other conifers noticeable were the Knap Hill Savin, a handsome variety of *Juniperus Sabina*, *Abies Douglasii*, Colorado variety, with rich green foliage and of compact habit of growth; *Cedrus atlantica glauca*, there are two forms of this, one of which is much superior in colour and habit of growth, and the weeping varieties of *Cedrus atlantica*. The Hollies, too, are another feature in the Knap Hill Nursery, and especially fine is Perry's Weeping Holly. These, of course, are just a few of the most select as will be understood when we say that the Nursery covers between 300 acres and 400 acres.

THE FRUIT GARDEN.

A COMMON APPLE PLAGUE.

APPLES are very scarce this year; there is not a tree bearing anything like a crop but what casts some of its fruits before they are ripe through the latter being bored by that common base of Apple growers, the caterpillar of the codlin moth. It matters not whether Apples are plentiful or scarce, this pest is always on the war-path, but it is in a season like this that its ravages are most evident, because we can ill afford to waste a fruit, especially of varieties possessing any qualities for keeping. "Windfalls" is the name commonly applied to Apples that drop early from the trees, but when they are picked up it may be observed that the majority of the fruits have the tell-tale hole at the side which denotes the passage of the grub. It is rumoured that a new remedy for codlin moth caterpillar is forthcoming from a well-known source, and if it turns out to be really effective the introducer will earn for himself the blessings of Apple growers in general. H.

EARLY PEARS.

THE season in which English-grown Pears are available for dessert covers a long period of the year, beginning in July and ending in April or May. The value of this fruit in the household has been long recognised, and yet its culture, especially in small and moderate-sized gardens in England, is on a very small scale. This is regrettable, for the tree, if suitable varieties are selected, is as free in growth as the Apple or the Plum, and quite as much at home, whether in the garden, the orchard, or even the shrubbery or pleasure ground. As a garden and orchard fruit the Pear is not sufficiently grown, and for the shrubbery and pleasure grounds it is practically ignored. Its foliage in the autumn assumes a richness and variety of colouring possessed by few other trees. So beautiful is the foliage of some of the varieties in autumn that I have on many occasions used them effectively for wreathing and dressing the dining-table, the combinations of the various shades of green, gold, and crimson being very beautiful when lighted up at night. I mention this in order to advocate its more extensive use as an ornamental tree for the shrubbery and pleasure ground. It is far and

away better than such things as common and Portugal Laurels, green Holly, Yew, Privet, and other such ordinary subjects as the majority of shrubberies are planted with, to say nothing of the value and beauty of its fruit in summer, autumn, and winter.

As the best season of the year is now approaching for the planting of these trees—late October, November, and December—let me advise those possessed of gardens to have a look round and note how they stand as regards the number of trees of this valuable fruit they may be possessed of, and whether it is not desirable to add them to the garden and orchard, but more especially for the embellishment of the shrubbery and pleasure ground. Tall standard trees should be planted in shrubberies, where they can be seen to advantage above shrubs of lower growth; but trees of pyramidal growth may be introduced with advantage as single specimens for the lawn.

The following twelve early varieties are amongst the best, and are named according to earliness of ripening: Doyenné d'Été, a free-bearing sort. The fruit is small, but very sweet; ripe in July. It must be gathered immediately it begins to turn yellow, and if grown for the purpose of sale should be disposed of as gathered from the tree. This remark holds good as regards all the early varieties, as once they are quite ripe they soon decay, and of course are of no value when over ripe; Beurré Giffard, Jargonelle, Clapp's Favourite, Souvenir du Congrès, Citron des Carmes, Williams' Bon Chrétien, of which we give an illustration.

This old and well-known variety, for use at the end of August and early in September, is undoubtedly still the best sort to grow in quantity, whether for home consumption or for sale. The varieties here enumerated will succeed well in the open ground as dwarf bushes, pyramids, or standards.

Fondante d'Automne, Mme. Treve, splendid quality, fine appearance, and large size; one of the best of late introductions; Beurre d'Amanlis, Souvenir du Congrès, a handsome highly coloured Pear; Triomphe de Vienne, a Pear of recent introduction, and for quality, size, appearance, and productiveness deserving first place among September Pears. The above are in season from July to the end of September. A further list will be given in an early number of Pears in season from the end of September to Christmas. OWEN THOMAS.

worth room in all gardens, as it is so distinct from other vegetables, and when cooked in a young state is delicious.

PEA SUTTON'S MATCHLESS MARROWFAT.

This splendid Marrow Pea was one of a very limited number that received a first-class certificate for its cropping and eating qualities when grown for trial at Chiswick with a large number of other sorts. I am sure that any Pea that passes this severe test when grown under somewhat adverse conditions as regards soil and position will in well-tilled gardens be a splendid acquisition. For general use Matchless Marrowfat is well named. It is not unlike in size other large Marrows, but the pods are better filled, often containing ten to twelve Peas. These are large and of a splendid colour when cooked. All Marrow Peas lack the quality of this one, and it is well named Matchless on this account. The haulm also resists mildew splendidly, even in the north, where the rainfall is usually very great. The growth is robust, a great gain in poor soils or exposed positions. The Matchless grows freely when given



PEAR WILLIAMS' BON CHRETIEN.

plenty of room, and being dwarf (only 4 feet) it is more valuable, as it crops low down on the haulm. It is excellent for August or September.

A NEW RUNNER BEAN, HACKWOOD SUCCESS.

At a recent meeting of the Royal Horticultural Society the fruit committee unanimously gave the above Bean an award of merit without trial at Chiswick, which is the usual procedure unless the exhibit is quite above the average. There can be no question whatever but that the Bean staged by Mr. Bowerman of Hackwood Park Gardens, Basingstoke, was certainly a most valuable addition to this class, and I have never seen a better cropper or a better shaped pod, considering the quantity of pods in a cluster. It crops enormously.

The committee had no opportunity of testing the flavour, which many will say is a most important detail, but in cases of this kind it is readily seen that a pod of the texture of the Hackwood Success would be of first-rate quality. Many of the pods were quite 12 inches long and remarkably fleshy; the seeds were not large or prominent. There can be no doubt that such an excellent cultivator as Mr. Bowerman will have found this new Bean most valuable. It will soon become a great favourite owing to its cropping and splendid shape. There are few small pods, and the colour is a deep green. G. WYTHES.

A GLOOMY OUTLOOK FOR POTATOES.

DISASTER seems to have followed disaster throughout the present season, which possesses the unenviable reputation of being amongst the worst on record for farmers, gardeners, and fruit growers, and now it is a cheerless duty I have to perform in writing gloomily of the Potato crop. At one time we were very hopeful about the Potatoes, for in spite of the fact that a few varieties produced spindling growth and did not look promising, the majority presented that healthy, vigorous appearance which indicates an abundance of tubers.

Gloomy skies and wet sunless days, however, have brought on the disease. Some thoughtful growers sprayed their Potatoes with Bordeaux mixture as a means of prevention, and are hopeful that the operation did some good, but the rain which fell every day washed off the mixture, and sprayed plots are by no means free from the disease. In the south of England I never saw Potato haulm go off more quickly than during this year. At the beginning of August, with the exception of early varieties, the growth was green and vigorous, and then the tell-tale blotches appeared, the foliage gave off an obnoxious odour, and a week or two later nothing remained of the tops but black and withered stems.

Opinions differ as to the best course to pursue when Potato haulm is badly struck with disease. Some advise cutting it off as a means of checking the spread of the plague, and if this course does no good it cannot do much harm, considering that the disease causes the tops to die away of their own accord. Others advise digging up the tubers, which is all very well in the case of varieties that are ripe and provided the weather is suitable, but Potato lifting is out of the question when it rains every day and the garden is a quagmire. Even if conditions were favourable I fail to see much wisdom in digging main crop Potatoes several weeks before they are ripe as a means of preventing disease, and experience has taught me that in such cases the disease is apt to spread amongst the tubers more rapidly after being lifted than if they were left in the ground till fully matured.

The fact of the matter is that we are largely victims of circumstances so far as Potato disease is concerned, and our only hope is that though the tops are gone the tubers may escape.

It is a forlorn hope I know, for amongst the Potatoes that are being dug for daily use diseased tubers are continually being unearthed, and this is anything but a good sign. Spraying with Bordeaux mixture is a partial remedy when used in time, but it is not a whole one as this year proves, and it is hard to see how it can be when the rain washes it off as fast as it is applied, and the sodden state of the ground prevents one getting on it to perform the operation with any degree of comfort.

Disease-proof varieties are fairly plentiful—in catalogues—but in gardens they do not exist; at any rate, not in such seasons as the present one, and the disease-proof Potato has yet to come. I am prepared to admit that some varieties are more liable to disease than others, and it is wise of growers to discard those which suffer the most. Not being disposed to pay the absurd price asked for seed tubers of the sensational Northern Star in the spring, I am not growing it, but should be interested to learn how it is standing the strain in regard to disease. If I am not very much mistaken it is the watchful men who will make the most of their Potatoes this year, and by watchful men I mean those who seize rare opportunities when the soil is dry for lifting the crop, and being careful to pick out every tuber that is at all affected with disease. There must be none of that packing away in clamp or store, and dismissing the Potatoes from the mind, such as is possible in

THE KITCHEN GARDEN. IMPORTANT VEGETABLES.

THE CUSTARD MARROWS.

CUSTARD MARROWS of the older varieties are not so much grown as the common long or oval type, and this is not surprising, as it does not crop so freely and is later in bearing. It will be interesting to note the different forms of Marrows now on trial at the Royal Horticultural Society's gardens at Chiswick. I think from close observation that the best results are obtained from plants of trailing growth. The bush variety makes a better garden plant in a small state, but it does not give so good a crop as the trailing variety, and this is important.

With regard to the cooking of both the Custard and the ordinary sort, the fruits are often left too long before they are cut, and this is more important with the Custard than others, as these age quickly. When old they are dry and mealy. The Improved Custard Marrow is

some seasons, but the tubers must be looked over periodically after they are lifted, and diseased specimens be removed or they will be sure to contaminate the whole. No stretch of exaggeration could say that the Potato outlook is promising, but it seems to be in keeping with most other things this year, and being victims of circumstances the limited means at command must be used to prevent the spread of disease. G. H. H.

SOCIETIES.

CROYDON HORTICULTURAL SOCIETY.

THE members of this society were entertained at their rooms, George Street, on Tuesday, the 18th ult., with a highly interesting and instructive paper on "Orchard and Bush Fruit Pests, and How to Destroy Them."

The lecturer was Mr. A. Maalen, Bramley Hill House Gardens, who has on several previous occasions read papers on various subjects at this society's meetings, and he fully maintained his reputation as an exponent of good practical knowledge and advice. In opening his subject he dwelt at some length on the ravages of insect pests, which cause so much worry and anxiety to the gardener and his employer, and the first thing to consider in preventing or eradicating them was to find out which species of the many enemies the attacks were from and so apply the remedies at the proper time. As the old saying is "Prevention is better than cure," so he advised taking the necessary precautions in the late autumn by removing all loose bark on the trees and applying a good insecticide, which would materially benefit the grower in the later seasons when the blossom appears and the hoped-for satisfactory crop of fruit is expected. Another spraying of insecticide should be given before the blossom opens and again after the fruit has set. The use of a fine spray he recommended, as this was conducive to better results than deluging the trees and foliage. He mentioned the number of insecticides on the market, but a few home-made remedies, which he had used with great success, he thought would be more appreciated. Half a pound of emerald green stirred well in 100 gallons of water, adding 1 lb. of lime, is one good remedy. Another is 6 oz. of arsenite of soda dissolved in a little water. Pour this solution into 100 gallons of water, also adding 18 oz. of sugar of lead dissolved in water, and a small portion of soft soap; mix well together during use. This is poisonous, and care should be taken not to leave it carelessly about nor to spray the trees within six weeks of gathering the fruit. A useful wash for winter use is obtained by dissolving separately in water 1 lb. of caustic soda, 1 lb. of crude potash, 1 lb. of soft soap, adding enough water to make 10 gallons of wash; mix well together and apply in the middle of February to the trunks and branches. The varieties of insects he dwelt upon were the winter moth, Apple blossom weevil, codling moth, Apple sawfly, American blight, magpie moth, Gooseberry and Currant sawfly, Currant clear winged moth, and Black Currant gall mite; for the latter, he regretted to say, there was no effectual cure known.

The paper raised a very appreciative discussion by the members, and at its conclusion a hearty vote of thanks was accorded Mr. Maalen.

Several exhibits of flowers were staged, and the thanks of the meeting were given to Messrs. Bunyard, Gregory, and Kromer for bringing them. One new member was elected.

The chairman, Mr. W. J. Simpson, announced the next meeting to take place on September 1, when "Discussions on Floral Decorations with Demonstrations" would constitute the programme.

COMMONS AND FOOTPATHS PRESERVATION SOCIETY.

ENCLOSURE OF STONEHENGE.

THE following letter has been addressed by the Right Hon. G. Shaw Lefevre, chairman of the Commons and Footpaths Preservation Society, to Lord Edmond Fitzmaurice, chairman of the Wilts County Council, with reference to the proceedings proposed to be instituted on behalf of the society to secure a legal decision upon the position of the alleged public rights prejudiced by the enclosure of Stonehenge:—

"August 15th, 1903.

"Dear Fitzmaurice,—I learn from the reports in the local papers that the Wilts County Council, of which you are chairman, at its meeting last week, arrived at two decisions with regard to Stonehenge: (1) It declined to accede to the application of the Commons and Footpaths Preservation Society for a contribution to the costs of legal proceedings, to be undertaken by them for vindicating the right of public access to the monument, by well defined and long used carriage ways, free of charge, and for removing the fences which have been erected across these roads, and which so cruelly disfigure Stonehenge. (2) It agreed to forward to the Government, but apparently without comment or approval as to terms, the offer made to you as chairman of the council, by the owner of the land on which the monument stands, to sell his interest in it and eight acres of land for the sum of £50,000.

"With respect to (1) I may remind you that the application was made by the society many months ago under the impression that there would be difficulty in obtaining either from the County Council or the general public full pecuniary support for the necessary legal proceedings. Later, however, when the County Council, a few weeks ago, decided not itself to undertake these proceedings, on the ground, mainly, that the cost of them ought to be borne by the general public rather than by the District Council, on whom they would fall, if litigation were set in motion by the County Council, the society decided to make an appeal to the public

for the whole of the necessary funds. This appeal met with such general support, testifying the great public interest taken in the question, that the society found themselves in a position to undertake whatever steps are necessary for determining the question of right, and they accordingly instructed their solicitors to commence without further delay (of which there has been too much in the past), the necessary legal proceedings.

"As, however, it is not likely that any material progress will be made in such proceedings until after the long vacation, there will be ample time afforded for negotiation between the Government, yourself, and the landowner concerned, for the transfer of the interest of the latter in the monument. This will be a solution eminently satisfactory to the society, relieving them from an invidious task, provided it is clearly understood, that the fence which so disfigures the monument will be removed, and that the terms of purchase are reasonable.

"The society thinks it necessary to make these reservations, for it has been suggested in some quarters that the fence should be maintained even after purchase of the monument by a public authority. They feel strongly that the existing fence should be removed in any case, whatever other means of protection may hereafter be deemed advisable.

"They are also of opinion, in view of the great importance of the legal issues involved in this case, and the bearing which a decision on them may have on many cases of the same kind in other parts of the country, that unless the terms of purchase are much more reasonable than those now offered, it would be more to the interest of the public that the question of the right of access to the monument should be determined in the first instance.

"Believe me, yours very truly,

"(Signed) G. SHAW LEFEVRE, Chairman.

"The Lord Edmond Fitzmaurice, M.P."

NATIONAL AMATEUR GARDENERS' ASSOCIATION.

CONTRARY to the usual custom the monthly meeting of this association was held on the second Tuesday in the month, and for this reason the president, Mr. T. W. Sanders, F.L.S., took the chair at the meeting held on the 11th inst. at Winchester House, Old Broad Street, London, E.C., at seven o'clock in the evening. Considering the exceedingly heavy rain, the muster was a very satisfactory one. On this occasion Mr. G. M. Grose read a paper entitled "The Influence of Air on the Roots of Plants." Among the practical points touched upon Mr. Grose said he had made many experiments, and the results of his efforts in this direction were given in a simple and concise manner. He spoke of the great advantage of deep culture, as well as of the constant aeration of the surface soil. Regarding the question of plants grown in pots, he referred to the fact that they immediately send their roots to the side of the pots, and not until the roots well fill the pots are flowers of any consequence forthcoming. Mr. Grose gave the result of the following experiment: He planted three Cannas outdoors, 6 feet apart. Around the first he made six holes about 18 inches deep, around the second he bored three holes, and the third plant was left to develop in just an ordinary manner after planting. The holes were immediately filled in with ashes, and the results were as follows: The first plant grew vigorously, and flowered freely for a long time; the second also did well, but not nearly so well as the first plant; and the third plant was more or less a failure. He also spoke of the value of worms in the aeration of the soil, of deep trenching, and the frequent stirring of the soil. Mr. Grose gave his testimony to their advantage. In soils devoid of nitrogen this treatment was invaluable. He also referred to the value of experiments and the careful noting of the results. The paper, though rather shorter than usual, was most interesting, and full of information. The discussion which followed was one of the best which the members have participated in, and was taken up from both scientific and practical aspects. A vote of thanks was accorded the lecturer at the close of a very pleasant evening. The exhibition was held, as usual, in the great hall, and was another of this society's best efforts. Table decorations, by lady members, were admirably shown, Miss Welch, Mr. D. Olliver, and Miss Levi making charming displays. Hardy flowers were superbly exhibited and in pleasing variety. Mr. D. B. Crane was an easy first for six bunches distinct. This exhibit also gained a cultural certificate. Mr. F. M. Vokes, Southampton, was second, and Mr. Levi, Weybridge, third. In a class for a collection of cut flowers there was a remarkable competition, a grand lot of Gloxinias gaining first prize and a certificate for Mr. Bland G. Sinclair, Highgate Road, N.W. A splendid lot of tufted Panseas were shown in this class, as were hardy flowers and Orchids. Taken as a whole the exhibition was a testimony to the cultural skill of the members, and it was easy to see that the different subjects were taken up most enthusiastically. Mr. George Hobday, a Romford amateur, staged Black Hamburgh Grapes, Apples, Tomatoes, as well as vegetables in variety, and each subject in a high state of development.

BRIGHTON HORTICULTURAL SOCIETY.

THE usual summer exhibition of the above society was held on the 25th ult. in the Dome and the Pavilion, and also in the grounds of the Pavilion under a tent, in which the principal plant classes were placed. There was a large increase in the entries and in the number of exhibitors, and a very fine show resulted. The weather was quite fine, though showers threatened, and there was a large attendance. At the luncheon to the judges, presided over by the president, Jeremiah Colman, Esq., a very satisfactory account was given of the progress of the society, there having been a substantial addition to the number of members.

Of plants there were charming groups arranged for effect; Mr. George Miles, nurseryman, Hove, was first with an arrangement of a very artistic character; Lilies were a prominent feature, among them being fine examples of Lillium

auratum rubro-vittatum; Mr. J. Harper, gardener to E. G. Tucker, Esq., Preston Park, was second; he had Lillium Crotone, &c., in good character. In the class for a group of Ferns, Mr. Adams, gardener to Sir G. Shiffner, Bart., Lewes, came first; his arrangement was perfect, especially two cases of finely-coloured Adiantum farleyense; Messrs. W. Miles and Co., nurserymen, Hove, were second.

Tables of foliage and flowering plants, arranged under the Dome, made a very effective feature. Mr. H. Head, Drive Nursery, Hove, came first, and Mr. George Miles was second; both with pretty tables. Begonias, shown in twelves, were fairly good; the best came from Mr. J. Bucknall, gardener to J. Lawson, Esq., Hassocks; the second prize fell to Mr. G. Norman, gardener to P. H. Bayer, Esq., Withdean. Some medium-sized well-coloured Crotons were shown by Messrs. W. Miles and Co., who was placed first; and Mr. H. Garnett, gardener to R. G. Fletcher, Esq., Preston Park, was second. Some bright-coloured Dracenas were shown by Mr. W. E. Anderson, gardener to B. Parish, Esq., Preston. There were some good specimen Palms, and there was a class for a single Palm also, fine examples being staged. Messrs. W. Miles and Co. were first with six good specimen Ferns; Mr. George Stratford, gardener to Dr. Hart, Brighton, was second. One collection of six medium-sized Fuchsias was staged. Zonal Pelargoniums shown in sixes were both well grown and bloomed, and made striking patches of colour. Coleuses were in the form of well-grown and brightly-coloured specimens. There were pretty table plants, and well-coloured Caladiums, though not of large size. The best four pots of Lillium speciosum came from Mr. G. Eastwood, gardener to Mrs. Gould, Hassocks.

Groups of plants were also shown by gentlemen's gardeners and amateurs; the best was set up by Mr. W. E. Anderson. Tables of flowering plants were also shown in this division, and also table plants.

CUT FLOWERS.

At this period of the year these would be plentifully shown. A very interesting class was that for a table of Carnations, the flowers on long stems and arranged with suitable foliaged plants; two very pretty tables appeared: the first prize went to Mrs. Shiffner, Lewes; Mr. H. Elliott, nurseryman, Hurstpierpoint, was second. Roses were little underlined, but fresh and bright; Mr. H. Harris, gardener to E. M. Everard, Esq., was first with twelve blooms, and also with twelve Tea-scented varieties; Mr. J. Davis, gardener to Major Thurlow, Uckfield, was second in both classes. The best twelve spikes of Gladioli were shown by Messrs. J. Cheal and Sons, Lowfield Nurseries, Crawley, and they had the best twenty-four show Dahlias, showing good blooms for the season; Mr. J. Brown, Worthing, was second; the Crawley firm were also first with twelve very pretty bunches of single Dahlias, which contained two or three new varieties; the best sorts were Aurora, William Parrot, Leslie Seal, Columbine, and Snowdrop; Messrs. Cheal and Sons were also first with twelve excellent bunches of Pompon Dahlias—Cyril, Jessica, Elia, and Darkest of All were perfect. In the twelve bunches of Cactus Dahlias, Messrs. J. Stredwick and Son, Silverhill, St. Leonards, were first with a very fine lot, nearly everyone of which were new varieties.

Certificates of merit were awarded to Ella Krummer, Comet, Osprey, Falcon, Ivanhoe, Florence, George Gordon, and Miss Florence M. Stredwick.

In the amateur's division Mr. P. W. Tulloch, Hove, the secretary of the National Dahlia Society, was first with six excellent bunches; and he also took Messrs. Cheal and Sons' special prize for six vases of Cactus Dahlias, setting up admirable blooms in both cases. Mr. J. Harper had the best six bunches of Pompon Dahlias.

The class for twenty-four bunches of perennials and bulbous plants brought a very fine collection from Mr. J. Davis, who was placed first; Mr. W. Manton, gardener to the Rev. E. Mashtier, Hurstpierpoint, was a good second. Mr. Davis also came first with twelve distinct kinds of annuals; and Mr. F. Bapley, gardener to Miss Visick, Withdean, was second; both being in good form. With six bunches of Sweet Peas Mr. H. Harris was first, and Mr. F. Webster, nurseryman, Tonbridge, second. Asters were fairly good. Some good collections of cut stove and greenhouse plants were shown. The name of the winner of the first prize was not appended. Hardy perennials, in collections of twelve bunches, were very good.

FLORAL DECORATIONS.

The best bridal bouquet, and also that for a ballroom, were staged by Mr. A. W. Trossell, Tonbridge. The best device was a harp in white flowers; and a good wreath took the second prize. There were some very pretty dinner tables. The first prize was awarded to Mrs. G. Lindsay, Hailsham. There were also pretty baskets of cut flowers.

FRUIT.

The display of fruit was extensive and very fine. The best collection of eight dishes was set up by Mr. J. Gore, fruit grower, Polegate. He had Gros Maroc and Muscat of Alexandria Grapes, Dr. Hogg Peach, Milton Nectarine, Figs, Bon Chrétien Pears, very fine Lady Sudeley Apple, &c. Mr. E. Neal, gardener to Mrs. Nix, Tilgate, was a good second. Mr. Gore also had the best collection of three bunches each of three varieties of Grapes, staging in fine character Gros Maroc, Muscat of Alexandria, and Gradenka, a pale amber variety, appearing as if intermediate between Buckland Sweetwater and Foster's Seedling. Mr. W. Taylor, gardener to C. Bayer, Esq., Forest Hill, was a good second. He had Gros Maroc, Chasselas, Napoleon (very good), and Madresfield Court. Mr. J. Seymour, gardener to T. W. Crook, Esq., Worthing, had the best two bunches of Muscat of Alexandria, fine bunches, fairly well coloured; Mr. C. H. Jones, gardener to H. W. Woodley, Wivelsford, was second. Mr. C. Earl, The Gardens, Somershill, Tonbridge, had the best two bunches of Black Hamburgh, finely coloured; and Mr. E. Neal was second. The best two bunches were Muscat of Alexandria from Mr. Neal. Mr. Earl being second with the same sort. The best two dishes of Peaches were Mr. Gladstone and Sea Eagle from Mr. G. Fairs (Messrs. Young and Co.), Hassocks; Mr. Eastwood was second. Mr. Gore had

the best two bunches of Nectarines, having very fine fruit of Milton and Stanwick Elrags, Mr. Fairs coming second with Pine Apple and Spencer. Peaches and Nectarines were also shown in single dishes. The best dish of Pears was Bon Chrétien. Mr. F. W. Thomas, Polegate, had the best four dishes of dessert Apples, viz., Lady Sadeley, Beauty of Bath, Worcester Pearmain, and Kerry Pippin. Mr. A. H. Parsons, Lewes, was second; his best two dishes were White Melrose and Irish Peach. Lady Sadeley was the best single dish. Calinary Apples were very good, the best among them being Peasegood's, Lord Salford, Ecklinville, and the Queen. The best single dish was Ecklinville. Plums were good. Mr. J. Redman, Lewes, had the best four dishes in Diamond, Washington, Victoria, and Purple Gage.

Vegetables filled a large room. There were many collections competing in various classes. Potatoes in collections of six dishes were a fine feature.

There were several very fine miscellaneous exhibits, among them a magnificent collection of foliage and flowering plants, arranged with great skill and taste, from Messrs. Balchin and Sons, nurserymen, Brighton and Hassocks, who also had a representative collection of shrubs; Mr. T. S. Ware, Limited, Feltham, had a large bank of hardy flowers; Messrs. J. Cheal and Sons, Crawley, filled a large table with fruit trees, various plants, cut flowers, &c.; Messrs. J. Peed and Sons, nurserymen, West Norwood, had fine plants, cut flowers, &c.; Mr. G. W. Piper, Uckfield, charming Roses; and Mrs. Banger, alpine, &c.

A COTTAGE SHOW.

LADYWELL, LEWISHAM, AND DISTRICT COTTAGERS' HORTICULTURAL SOCIETY.

The twenty-second annual exhibition of this society was held in the grounds of Riverdale on the 19th and 20th ult., and, though the weather was unfavourable, it proved a great success and attracted a large number of visitors. At the opening ceremony, the president (Mr. H. J. Jones) explained that the society originated through some dispute as to who could grow the best Vegetable Marrows, the result being a competition, which attracted so much interest that the following year it was continued and other vegetables added to the list for competition. Eventually flowers and plants were also added. The society has continued to prosper until now it has become one of the most important of the suburban societies. The most important work of the society is that the allotment ground, which consists of some 160 plots, is under the control of the committee, and the vegetables grown by the cottagers would compare favourably with those grown by more experienced cultivators and under more favourable conditions. One of the rules is that a member holding a plot is liable to have it taken away at a week's notice if it is not properly cultivated, but it is rarely that this rule has to be enforced. All vie with each other in trying to secure the prizes offered annually for the best kept gardens, and also for the prizes offered for flowers and vegetables at the show, the number of entries for which were upwards of 600. The vegetable classes are, perhaps, the most interesting. In the flower tent some capital groups were set up. Messrs. J. Laing and Sons contributed a fine group of Begonias, also a collection of herbaceous plants. Mr. H. J. Jones had a miscellaneous group, in which Cannas, Begonias, and Celosias were arranged among Palms, Bamboos, Eulalias, and other light-follied plants.

SANDY HORTICULTURAL SOCIETY.

FOR thirty-five consecutive years a flower show has been held at Sandy, and for a considerable portion of the time on the last Thursday in August, and in the grounds of Sandy Place, which is very near the railway station. The show comprises almost every feature that can interest country people: plants, flowers, fruits and vegetables; farm produce, including cereals; market garden produce, for Sandy is the centre of a huge market gardening industry; needlework, knitting, dressed dolls, machine and hand work; stuffed animals, photography, honey, butter, eggs, trussed fowls, &c., in all some 255 classes; in addition, dogs, rabbits, cage birds, and pigeons are extensively shown, a large number of tents being required, and quite an army of judges. The society has a remarkable organisation; it has a good working committee of thirty-three members, in addition to the officers, and in all the leading villages in Bedfordshire and the adjacent counties there is a district committee looking after subscriptions and exhibitors, and organising travelling conveniences. Sandy is generally favoured with fine weather, and there was an enormous attendance, excursion trains coming from all parts.

PLANTS.

Sandy must have fine specimen plants, and offers a first prize of ten pounds. This draws Mr. Jas. Cypher, of Cheltenham, to the Bedfordshire village, and on this occasion he took the first prize with fine examples of Bougainvillea Cypheri, glabra, and andersonia, Statice intermedia, and profusa, Erica eweriana and marnockiana, Ixora macrostylis (Duffill), Stephanotis floribunda, and Alamanda nobilis. Mr. W. Vause, nurseryman, Leamington, came second; he had fine examples of Erica acroniata, E. emula and E. exquibite, Erica Pilgrimii, Alamanda nobilis, A. Hendersoni, &c. Mr. W. Finch, nurseryman, Coventry, was third; so Sandy can attract our three leading exhibitors of specimen plants. It is something for a country horticultural society to offer £30 in prizes in this one class. In the class for a group, two pretty ones were arranged: Mr. W. Finch was first and Mr. Vause second. Some pretty table plants were also staged.

In the amateur's division for six foliage plants, Mrs. Astall, Woodbury Hall, Sandy, was first with well developed subjects, and Mr. Humphreys, gardener to Sir A. W. Marshall, Buckland Tower, was second. The best six Fuchsias came from Mr. E. Leeds-Smith, Sandy. Stove and greenhouse plants were also shown in sixes; also Coleus, hardy Ferns, Balsams, Cockscumbs, always very fine, specimen plants in several classes, and zonal Ivy-leaved

and tricolor Pelargoniums. It was pleasant to see that Sandy encourages the last-named handsome leaved plants, and they were remarkably well grown. Very creditable window plants were also shown by cottagers.

The leading feature of the Sandy show is the cut flower classes; one very large tent and a portion of another were required to give accommodation to these classes. With twenty-four Roses, Messrs. G. and W. Barch, nurseryman, Peterborough, were placed first with some excellent blooms; the deep coloured Hybrid Perpetuals were particularly fine, Horace Verney in particular being in its best character; the leading blooms were Caroline Testout, Killarney, Duke of Teck, Beesde Brown, Mme. Eugene Verdier, Frau Karl Druschki, Mrs. J. Laing, Marie Baumann, Star of Waltham, Comte Raimbault, Dr. Andry, Mrs. E. Mawley, and Xavier Olibo, a fine lot of flowers for this late period of the year. Messrs. E. Harkness and Co., Hitchin, were second also with good blooms, chief among them being Her Majesty, Marchioness of Londonderry, Tom Wood, F. Karl Druschki, Niphetos, Horace Verney, Comte Raimbault, Mme. Wagram, &c.; Messrs. Harkness and Son, Bedale, were third. With eighteen Tea-scented, Messrs. Harkness and Co., Hitchin, were first; they had in good character Rubens, Mme. Wagram, Mrs. E. Mawley, Ernest Metz, Jean Ducher, Marie van Houtte, Souvenir de S. A. Prince, White Maman Cochet, &c.; Messrs. Harkness and Son, Bedale, were second. Messrs. Harkness and Co., Hitchin, were first with twenty-four spikes of Gladioli; and Mr. C. Bright, Cambridge, was second, both showing in admirable character.

Dahlias are always a strong feature at Sandy. With thirty-six blooms of show varieties Mr. S. Mortimer, Swiss Nursery, Farnham, was first, and Messrs. Keynes and Co., nurserymen, Salisbury, were second. With twenty-four varieties Mr. G. Humphries, florist, Chippenham, was first, and Mr. J. R. Tranter, Henley-on-Thames, second. With twenty-four blooms of Cactus Dahlias, shown on boards, Messrs. Keynes and Co. were first. There were excellent examples of Maid of Honour, Imperator, Ajax, Mary Farnworth, J. W. Wilkinson, Albion, Etina, J. H. Jackson, Clarence Webb, Princess, Mrs. H. J. Jones, Mrs. J. J. Crowe, &c. Mr. S. Mortimer was second, and Mr. G. Humphries third. Cactus Dahlias in twelve bunches, six blooms in each bunch, made a most attractive display. Messrs. Keynes and Co. were first with very fine blooms of Reliance, Sceptre, and Pink Pearl (three new varieties), also Winsome, Mabel Tulloch, J. W. Wilkinson, Etina, &c. Mr. S. Mortimer was a close second. He had in fine character Gabriel, Lyric, Brilliant (new), Mrs. E. Mawley, Brightness, &c. With twelve bunches of Pompon Dahlias Mr. H. Brown, Luton, came first, and Messrs. Keynes and Co. were second.

The class for twenty-four bunches of hardy herbaceous and bulbous flowers brought a splendid collection from Messrs. Laxton Brothers, Bedford, who had Lilliums, Phloxes, Helianthus, Pyrethrum, Gladioli, Scabiosa caucasica (very fine), &c.; Messrs. Harkness and Co., Hitchin, were second; and Mr. A. R. Searle, Castle Ashby, third. Sweet Peas were also numerous shown in bunches.

In the amateurs' division there were classes for Dahlias, Roses, Gladioli, Marigolds, &c., and they were all well filled.

Fruit was well represented also. Mr. J. Barson, the Gardens, Hitchinbrook, Huntingdon, was placed first with eight dishes. He had Alicante and Muscat of Alexandria Grapes, Peaches and Nectarines (both very fine), Figs, Melons, &c.; Mr. H. Folkes, the Gardens, Gaddesden, was a good second. Mr. A. R. Searle, Castle Ashby, had the best six dishes, and Mr. T. Lockie, the Gardens, Diddington Hall, was second. Mr. W. C. Medral, the Gardens, Old Warden Park, was first with two bunches of Black Hamburg Grapes. Mr. C. J. Gribble, Biggleswade, had the best two bunches of Alicante. Mr. Barson came first with Muscat of Alexandria. Peaches, Nectarines, Melons, Figs, and Plums were well shown; red Plums were more numerous than the pale ones; culinary and dessert Apples were somewhat poor.

Vegetables were finely shown in competition for the special prizes offered by Messrs. Sutton and Sons, E. Webb and Sons, and others, but the crowded state of the tents prevented any particulars being gathered. There were some pretty table decorations, &c.

Large silver-gilt medals were awarded to Messrs. Dobbie and Co., Rothsay, for Dahlias, Roses, Pentstemons, &c., a very fine display, and a certificate of merit was awarded to fancy Dahlia William Sheldon; to Messrs. Hobbles and Co. (John Green), Dereham, for a most elaborate display of Dahlias, Roses, &c., and they were awarded certificates of merit for climbing Rose Dorothy Perkins, and for two charming Cactus Dahlias, viz., Effective and Dainty; and to Mr. W. B. Child, nurseryman, Acoc's Green, for cut flowers. Silver medals were awarded to Mr. F. M. Bradley, Peterborough, for Carnations, &c., and to Messrs. W. and J. Brown, Stamford, for plants and cut flowers. A certificate of merit was also awarded to Dahlia (show) Rothsay, from Mr. S. Mortimer. A collection of cut flowers, Clematis, &c., was also staged by Messrs. Wood and Ingram, nurserymen, Huntingdon.

ROYAL HORTICULTURAL SOCIETY.

ON Tuesday last the Drill Hall was almost filled with Dahlias, the occasion being the National Dahlia Society's annual show. Very little fruit, few Orchids, or other plants were exhibited.

ORCHID COMMITTEE.

Present: Messrs. Harry J. Veitch (chairman), James O'Brien, W. H. White, W. Boxall, J. Wilson Potter, E. Hill, J. W. Odell, F. Sander, Walter Cobb, and de B. Crawshaw.

Messrs. Charlesworth and Co., Heaton, Bradford, Yorks, showed some handsome Orchids—for instance, Cattleya Lord Rothschild (C. gaskelliana x C. aurea), C. Germania (C. schofieldiana x hardyana), C. Mrs. Pitt (C. Harrisoni x C. aurea), Brasso-Cattleya gigas-digbyana, Cattleya suavis superba (C. intermedia x Mendellii), Sophro-Lelia Gratrix magnifica, Cypripedium Mme. G. Truffaut (C. Stonei x C. ciliolare), and others.

Messrs. B. S. Williams and Son, Holloway, N., showed a small group of Orchids that contained several Cypripediums, Cologynema massangeana, Vanda tricolor The Glen var., and Cattleya crispata.

Messrs. Sander and Sons, St. Albans, exhibited several hybrid Orchids, notably Lallo-Cattleya blancheyensis (L. tenebrosa x C. gigas), L.-C. Martinetti (C. Mossie x L. tenebrosa), Cypripedium Transvaal (C. chamberlainianum x C. rothschildianum), Phalaenopsis Esmeralda, &c.

NEW ORCHIDS.

A first-class certificate was awarded to Cattleya X pittiana Wilson Potter's variety. — A large flower, with rosy buff drooping sepals and petals and broad handsome purple lip, fringed with white. The upper part of the lip is suffused with red-brown. Cattleya aurea and C. granulosa schofieldiana are the parents. Shown by J. Wilson Potter, Esq., Elmwood, Croydon (gardener, Mr. W. H. Young).

Awards of merit were given to Cattleya Esquiritia.—C. Holfordii x C. Parthenia var. Prince of Wales are the parents of this new Cattleya. The flowers are small, with white sepals and petals, and purple-tipped lip with yellow throat. Altogether a dainty flower. From Messrs. Sander and Sons, St. Albans.

Cattleya Tankerville.—A hybrid between Cattleya bicolor and Cattleya Rex. The sepals and petals are buff-coloured towards the margins, paling towards the centre. The lip is rich purple, and shows remarkably well against the light sepals and petals. From Messrs. Stanley, Ashton, and Co., Southgate, N.

FRUIT COMMITTEE.

Present: Messrs. George Bunyard (chairman), H. Balderston, Henry Esling, Owen Thomas, F. L. Lane, G. Reynolds, J. Willard, Horace J. Wright, James Gibson, Alex. Dean, William Fyfe, George Kell, John Jacques, H. Markham, W. Poupert, S. Mortimer, J. Cheal, and the Rev. W. Wilks.

There were several new Melons, a new Grape, a new Tomato, a new Apple, and a new Marrow before the fruit committee, but no awards were made.

Lady Plowden, Aston Rowant House, Oxon (gardener, Mr. Clarke), showed a collection of fruit that comprised very good Humboldt, Pine-apple, Newton, Lord Napier, and Stanwick Elrags Nectarines, Dymond Peach, Reine Claude de Bayay Plum, and Citrons. Silver Banksian medal.

FLORAL COMMITTEE.

Present: Mr. H. B. May (chairman), Messrs. W. Marshall, Richard Dean, C. T. Drury, J. F. McLeod, W. Howe, G. Reuthe, W. Bain, H. Turner, C. E. Pearson, C. Jefferies, B. Wallace, R. C. Notcutt, E. H. Jenkins, W. J. James, G. Paul, J. Walker, J. Fraser, E. T. Cook, J. Hudson, and the Rev. F. Page Roberts.

There is little doubt that the new Vines from Central China, exhibited by Messrs. Veitch and Co., Chelsea, on Tuesday last, were the most interesting new plants on this occasion. There were some seven species, all distinct, and good serviceable garden plants. The names are Vitis megaphylla, with bipinnate leaves 15 inches long and 12 inches wide at base, slightly glaucous beneath, and the rachis red. V. Thomsoni has five-lobed leaves, reddish above and purple-violet beneath. A neat and attractive plant, and one that clings well. V. acutifolia is almost self-descriptive, the five-parted leaves are distinctly and deeply notched. V. armata is a broad-leaved plant, with entire ovate leaves, the leaf-stalks and stems of which are thickly studded with spines. V. sinensis is a near approach to V. Colnetiae, with broad, ovate, entire, as well as five-lobed leaves often on the same plant. V. flexuosa Wilsoni is a small glossy-leaved species, the leaves ovate-acuminate, dark green, and reddish below; most attractive. V. Romaneti is a broad-leaved species after V. sinensis, and promises to be valuable for pergolas and the like. Buddleia variabilis var. vetchiana was also well shown by Messrs. Veitch, and a small group of Calceolaria Burbridgei was also shown by this firm.

Messrs. W. Wells and Co., Limited, Redhill, set up their first display of early Chrysanthemums, of which Carrie, a rich gold; The Champion, gold, with broad forets; Gertie, salmon-buff, with deeper centre; Champ de Neige, pure white; Orange, reddish chestnut; and Pearlie, rosy lilac, were the best.

Messrs. Hobbles and Co., Dereham, showed Fuchsia President Gosell, a plant almost midway between F. fulgens and F. corymbiflora, and with very ample foliage; also Fuchsia H. Henkel, a variety with dark leafage and pendent coral-red flowers.

Mr. George Paul showed a fine spike of Gladiolus Princess, very vivid in colour and wide-expanding flowers. Mr. R. C. Notcutt, Woodbridge, Suffolk, showed good panicles of Phlox Lady Kinloch, a variety with salmony pink flowers; and Mr. Young, Southend, Essex, had plants of Pelargonium Southend Gem, a sport from Raspaal that in some respects is like West Brighton Gem. It is semi-double and free-flowering.

Messrs. T. S. Ware, Limited, Feltham, showed Lobelia Feltham Beauty, a scarlet and white form of L. cardinalis. The same firm also exhibited Lillium auratum Fashiori, a widely-expanded form.

Gladiolus Mrs. V. Lennell, a form of G. nanceus, with bluish-white petals and a rich crimson blotch on the lower petal, was shown by W. C. Bull, Esq., Ellington Road, Ramsgate. It is very showy, and a good spike would be most effective.

Sir Trevor Lawrence, Bart., Dorking, also showed Gladioli, chiefly, however, of the purplish and violet shades. Messrs. Jones and Sons, Shrewsbury, had a large vase of Carnation Noni, a salmon-red variety, with a good clove perfume, and the flowers on strong stems.

Messrs. R. Wallace and Co., Colchester, showed Gladiolus Baron J. Hulot, deep violet-purple; G. Mephistopheles, scarlet and yellow, with crimson flakes, and G. Van Dael, a lovely rose-salmon, with an enormous spike of handsome flowers. This last is certainly one of the finest we have seen this season.

NEW PLANTS.

Vitis Thomsoni.—A remarkable and attractive species. The leaves are five-lobed, of a reddish shade on the upper surface, and a distinct violet-purple on the reverse side. They are supported on short stalks about 5 inches long. By means of tendrils the stems and branches readily obtain support. From every point of view this is a valuable climber. First-class certificate.

V. armata.—This is as vigorous in growth as *V. Colnagtie*, and has broadly ovate entire leaves, the petioles and main stems being abundantly studded with clearly erect spines. A handsome and showy species. Award of merit.

V. megaphylla.—A species with more or less bipinnate leaves, the lobes, as also the divisions, widely separated. The leaves when fully developed are 15 inches long and 12 inches broad. At the base the rachis is pale red, the leaves dark green above and glaucous beneath. Award of merit.

V. flexuosa Wilsoni.—This species should be admirably suited to small gardens by reason of its neat habit of growth. The dark glossy green leaves are about 2 inches across, ovate acuminate, crenate, with a reddish tinge on the under surface. It is a good and compact grower, and one of the most beautiful of the set. Award of merit.

V. sinensis.—This vine has the peculiarity of producing simple cordate leaves and three or five parted leaves on the same plant. Thus it will be seen to be a variable species, yet not the less beautiful on this account. It is tall and vigorous, abundantly furnished with foliage. Award of merit.

All of the above were shown by Messrs. Veitch and Sons, Limited, Chelsea. The plants, together with others mentioned in our general report, were collected in Central China by Mr. Wilson, and certainly constitute an admirable series of these good climbing plants.

Chrysanthemum The Champion.—An early-flowering variety and quite distinct in the broad florets that slightly incurve at the ends. The colour is a deep rich gold. From Messrs. W. Wells and Co., Limited, Redhill. Award of merit.

Chrysanthemum maximum King Edward.—A very large pure white broad-petalled variety, possibly the largest of the many now in commerce. From Mr. W. Angus, Penicuik, N.B. Award of merit.

Tamarix hispida aestivalis.—A pleasing variety with erect graceful inflorescences of a red-pink hue. From Messrs. Robert Veitch and Son, Exeter. Award of merit.

Hidalgoa Wercklei.—A beautiful gathering of flowers of this capital climbing plant was shown, the brilliant orange-vermilion colour being most effective. It was also interesting to learn that the flowers had been cut from a plant growing in the open. Shown by Sir Trevor Lawrence, Bart., Burford, Dorset (gardener, Mr. W. Bain). Award of merit.

Gladiolus Van Dael (Gandavensis).—The spikes shown were handsome and well filled with beautiful flowers of a pretty shade of soft salmon with delicate rose-pink shading. The spikes, we were informed, were merely taken from the beds in the ordinary way, and with no preparation for the exhibition table. From Messrs. R. W. Wallace and Co., Colchester. Award of merit.

NATIONAL DAHLIA SOCIETY.

ON Tuesday last this society held its annual exhibition in the Drill Hall, Westminster, kindly lent by the Royal Horticultural Society for the occasion. The display made by the Dahlias was particularly bright and attractive; in fact, the show was considered to be one of the best ever held by the National Dahlia Society. Cactus varieties were strongly represented, and Pompon and single varieties were also well shown. The classes devoted to the large show blooms made a brilliant display in themselves. Several new Cactus and Pompons and one single were certificated, but no show varieties gained awards. The non-competitive exhibits of Dahlias by nurserymen added much to the interest of the exhibition. There was quite a large gathering of Dahlia enthusiasts from all parts of the country, among them Mr. E. Mawley, president of the society. Thanks to the efforts of the honorary secretary, Mr. P. W. Tulloch, who was assisted by Mr. F. J. Hudson, judges and exhibitors found that admirable arrangements had been made.

NURSERYMEN—SHOW AND FANCY DAHLIAS.

Forty-eight blooms, distinct: First, Messrs. Keynes, Williams and Co., Salisbury, with a bright display of medium-sized blooms of excellent form. Among the best were Richard Dean, maroon; Dr. Keynes, orange-buff; John Hickling, rich yellow; Henry Bond, rich rose-lilac; Warrior, glowing red; John Walker, white; Mr. Charles Turner, Royal Nurseries, Slough, was a good second—the blooms were of very good form and of brilliant colours; Mr. S. Mortimer, Farnham, was third.

Thirty-six blooms, distinct: First, Mr. William Treseder, Cardiff. Some fine blooms were included in this stand, notably John Walker, white; Mr. Saunders, rich yellow and white; Mrs. David Saunders, rose-purple; Mrs. G. E. Gifford, yellow; Duke of Fife, dark red; and Mrs. Gladstone, pink and white. Mr. S. Mortimer, Farnham, Surrey, was second; the colours in his exhibit were most distinct and good, but the blooms lacked the splendid form of the first prize lot. Mr. John Walker, Thame, Oxon, was third.

Twenty-four blooms, distinct: First, Mr. M. V. Seale, Sevenoaks, with handsome well-formed flowers. S. Mortimer, purple; Crimson King; William Powell, yellow; and Peacock, dark crimson, with white tipped petals, were of the best. Messrs. J. Cray and Sons, The Nurseries, Frome, were second with very bright, good blooms, and Mr. George Humphries, Kingston Langley, third.

Eighteen blooms, distinct: First, Mr. George Humphries, The Nurseries, Kingston Langley, Wilts. Arthur Rawlings, dark red; James Cocker, purple-crimson; Mrs. Gladstone, pink; and R. T. Rawlings, rich yellow, were the best of a good lot. Messrs. J. Cray and Sons, The Nurseries, Frome, were a good second, although one or two of their blooms lacked size; Mr. M. V. Seale, Vine Nurseries, Sevenoaks, was third.

Twelve blooms: First, Mr. J. E. Tranter, Hart Street, Henley-on-Thames, with some good blooms; second, Messrs. J. Cheal and Sons, Lowfield Nurseries, Crawley.

CACTUS DAHLIAS.

Eighteen varieties (in bunches): First, Messrs. J. Stredwick and Son, St. Leonards, with a very handsome exhibit. The pinks were especially good, for instance, Mrs. J. W. Wilkinson, Pearl, Diadem, Rainbow, Comet, and Ella Kraemer; Ivanhoe, old gold; Mrs. Winstanley, bright red; Oliver Twist, red; and Florence Stredwick were distinct and good. Messrs. J. Burrell and Co., Howe House Nurseries, Cambridge, were second. Mrs. Edward Mawley, yellow; Albatross, white; and J. H. Jackson, maroon, were very good in a collection of somewhat small blooms. Messrs. J. Cheal and Sons, Lowfield Nurseries, Crawley, were third.

Twelve varieties, in bunches: First, Mr. John Walker, Thame, Oxon, with Mrs. Mawley, Eva, Crimson Gem, and Raymond Parkes as the best blooms. Mr. S. Mortimer was a very good second with finely-formed flowers. Queen Alexandra, rose buff, a new seedling, was noticeable. Mr. Charles Turner, Slough, was third.

Forty-eight blooms, distinct: First, Messrs. J. Burrell and Co., Cambridge, with a very bright display. There were some splendidly coloured flowers among them, and we may mention Roaine, rich rose; Gilbert, yellow; Maurice, rich crimson-purple; Blanche, white; Phineas, bright red; Olga, rich rose-lilac; Ida, pale yellow; H. Jackson, maroon. Of the varieties shown by Mr. Burrell forty of them were of his own raising. Messrs. Keynes, Williams and Co. were second, and their stand contained many good blooms. Messrs. J. Stredwick and Son were third.

Twenty-four varieties, distinct: First, Mr. W. Baxter, The Nurseries, Woking, with some bright and large blooms. A really good lot. Mr. S. Mortimer, Farnham, Surrey, was second, and his exhibit included some splendid blooms; third, Mr. W. Treseder, Cardiff.

Twelve varieties in vases: First, Messrs. J. Cheal and Sons, Lowfield Nurseries, Crawley, who exhibited a meritorious display. Perhaps the best vaseful was Mrs. de Luca, rich yellow, the outer petals pale bronze. Mr. M. V. Seale, Sevenoaks, was second, and Messrs. Keynes, Williams and Co. third.

POMPON DAHLIAS.

Twenty-four varieties in bunches: First, Mr. Charles Turner, Slough, with a lovely lot. Mr. Turner grows and shows these pretty flowers most successfully, invariably coming out best for Pompons. Mignon, deep purple; Bacchus, bright red; Emily Hopper, yellow; San Toy, white, edged purple; and Cyril, dark red, were among the best. Messrs. J. Cheal and Sons, Lowfield Nurseries, Crawley, were second with a very attractive collection; and Mr. M. V. Seale, Sevenoaks, was third.

Twelve varieties in bunches: First, Messrs. J. Cray and Sons, Frome, with Frome, Bacchus, red; Nerissa, rose-pink; Emily Hopper, yellow; E. Harper, red; and Nellie Broomhead, rich lilac, were best. Mr. John Walker, Thame, Oxon, was a good second, and Mr. George Humphries, Kingston Langley, third.

SINGLE DAHLIAS.

Twenty-four varieties: First, Messrs. J. Cheal and Sons, Crawley, with a beautiful display. There were some lovely things among them, for example, Eric, gold and pale purple; Miss Roberts, yellow; Serita, rich crimson; Snowdrop, white, yellow centre; Formosa, scarlet; Beauty's Eye, lilac-pink; Vesuvius, bright scarlet. Mr. M. V. Seale was second.

Twelve varieties: First, Mr. John Walker, Thame, with some good flowers. Miss Roberts and Beauty's Eye were of the best. Messrs. J. Cray and Sons, Frome, were second, and Mr. G. Humphries, Kingston Langley, third.

DECORATIVE CLASSES.

Shower bouquet of Cactus Dahlias: First, Mr. W. Treseder, Cardiff; second, Mr. Seale, Sevenoaks; third, Mr. Kimberley, Queen's Road Nursery, Kenilworth.

Vase of Pompon Dahlias: First, Mr. W. C. Pagram, Weybridge; second, Mr. M. V. Seale; third, Mr. Kimberley, Kenilworth.

Fancy single Dahlias, six blooms: First, Mr. J. F. Hudson, Gunnersbury House; second, Mr. John Walker, Thame; third, Mr. M. V. Seale, Sevenoaks.

AMATEURS' DIVISION.—SHOW AND FANCY DAHLIAS.

A considerable bulk of the membership of the National Dahlia Society is made up of amateurs, who grow plants in number according to their convenience for cultivation. They grow only the show varieties, caring little or nothing for the Cactus, Pompon, and single types. This class plants yearly a large number of Dahlias, and to them the show type represents the ideal of form and beauty. Readers of THE GARDEN would be greatly astonished could they realise anything like the quantities of cuttings and plants of show Dahlias annually distributed.

With twenty-four blooms, Mr. Thomas Anstias, Brill, Bucks, an old Dahlia grower, won the first prize in cash and a silver challenge cup. His leading blooms were William Powell, John Hickling, Duchess of Albany, John Walker, Dr. Keynes, Marjorie, R. T. Rawlings, Mrs. Gladstone, Mrs. Langtry, J. T. West, and Mrs. W. Slack. Mr. J. Pilling, Ges Cross, Hyde, was second with somewhat similar varieties; and Mr. W. Peters third.

With eighteen blooms, Mr. A. Parker, Ivy Hatch, Sevenoaks, was first, having as his leading flowers Duke of Fife, Dandy, Duchess of York, Mrs. Gladstone, Henry Eckford, Dr. Keynes, Florence Tranter, and Matthew Campbell. Mr. S. Cooper, Hamlet, Chippenham, took the second prize; and Mr. E. T. Matthews, Derby, the third.

With twelve blooms from which fancy varieties were excluded, Mr. John Newman, Bell Inn, Kingswood, Bristol, was placed first with some excellent flowers, chief among them being Mr. Glascock, Marjorie, R. T. Rawlings, Dr. Keynes, Duchess of York, Florence Tranter, the Rev. George Rawlings, and Richard Dean; Mr. J. Cousins, Greenway Lane, Cheltenham, was second.

With six varieties, a class in which there were several competitors, Mr. G. Hood, Langley Burrell, Cheltenham,

took the first prize. He had in excellent character Arthur Rawlings, John Walker, Ethel Britton, R. T. Rawlings, Shotesham Hero, and Mrs. Gladstone. Mr. F. Grinstead, Beaufort Park, Battle, came second, also with some good blooms; and Mr. J. Britton was third.

With twelve fancy Dahlias, Mr. S. Cooper came first. He had in tipped and striped flowers Rev. J. B. M. Camm, Mrs. Saunders, Dandy, Hercules, Sunset, Matthew Campbell, Watchman, &c.; Mr. Thomas A. Antles was a good second. With six fancies, Mr. J. Newman came to the fore. He had in good character Mrs. Saunders, Gaiety, Matthew Campbell, Hero, and two others; Mr. J. Cousins was second, and Mr. A. Parker third.

CACTUS DAHLIAS.

Next came a class for six bunches of Cactus varieties, six blooms in a bunch, shown in vases with appropriate foliage. There appeared to be but one exhibitor, the first prize going to Mr. E. Turner, Hippington, Sevenoaks, the varieties unnamed.

With nine bunches, three blooms in a bunch, Mr. P. W. Tulloch, Hove, the honorary secretary of the society, was well ahead with fine blooms of Mrs. H. J. Jones, J. H. Jackson, Mrs. E. Mawley (awarded a silver medal for the best bunch in this division); P. W. Tulloch, Florence, Miss F. M. Stredwick, a fine new white; H. T. Robertson, Mrs. Winstanley, Lucifer, a bright coloured flower, &c.; Mr. W. Peters was second; and Mr. G. Quinlan third.

With six vases, Mr. H. Brown, Luton, came first; he had good bunches of Ajax, J. W. Wilkinson, Lord Roberts, J. H. Jackson, Mrs. E. Mawley, and Up-to-date; Mr. F. Grinstead took the second prize.

The best twenty-four blooms of Cactus shown on boards were set up by Mr. H. A. Needa, Horsell, Woking. He had in fine character Alpha, Mrs. E. Mawley, Florida, Clara G. Stredwick, Uncle Tom, Lady Collin Campbell, J. W. Fife, Mabel Tulloch, Gaillard, Mrs. Clifton, Winnifred, Richard Dean, Ringdove, Lyric, &c. Mr. J. Bryant, St. Martin's Terrace, Salisbury, was second, also with excellent blooms; and Mr. J. Shoebridge, St. Margaret's, East Grinstead, was third.

With twelve blooms, Mr. H. Brown was again to the fore. He had in very good character Ajax, Charles Woolbridge, Mrs. E. Mawley, J. W. Wilkinson, Lord Roberts, Roaine, Exquisite, and Mrs. Carter Page. Mr. E. T. Matthews, 42, Almond Street, Derby, was second, and Mr. G. Quinlan third.

With six blooms there was, as in the former class, a keen competition. Mr. N. Lockyer, Greenhill Park, New Barnet, taking the first prize with capital examples of Alpha, Vesta, Mrs. H. J. Jones, Lord Roberts, Starfish, and Britannia.

POMPON DAHLIAS.

With twelve varieties in bunches of six blooms, Mr. H. Brown was first with charming blooms of Emily Hopper, Dr. Jim, Rosebud, Nerissa, Hypatia, and Distinction; Mr. J. F. Hudson, Gunnersbury House, Acton, came second; and Mr. W. C. Pagram, The Whin Gardens, Surbiton, third.

With six varieties Mr. A. Brown, of Luton, came first. His best blooms were Lorna Doone, Buttercup, Nerissa, and Bacchus. Mr. T. Grazeley, North Street, Luton, was second, and Mr. J. Britton, Brentwood, third.

SINGLE DAHLIAS.

With six varieties in bunches of ten blooms Mr. J. F. Hudson came first with Lealie Seale, William Farrot, Columbine, Polly Eccles, Eric, and one other. Mr. E. Mawley, the president of the society, Rosebank, Berkhamsstead, came second with good bunches of Victoria, Polly Eccles, Tommy, Aurora, &c.; Mr. W. Peters was third.

With six bunches, six blooms in each, the Rev. S. Spence Pearce, Woodstock, Oxon, was first. He had very good Beauty's Eye, Victoria, Columbine, and Polly Eccles.

With twelve varieties, three blooms of each, arranged for effect with foliage, Mr. E. Mawley was first and Mr. J. F. Hudson second, but this class was not a success from an artistic point of view.

DECORATIVE CLASSES.

The best basket of Dahlia blooms, arranged with any kind of foliage, came from Mr. H. A. Needa. He had pale coloured Cactus varieties, with bronzy and green foliage, an excellent piece of work. Mr. Richard Edwards, Sevenoaks, came second, also with a pretty basket of Cactus Dahlias, similarly arranged.

Mr. Needa also had the best vase of twelve Dahlia blooms, similarly arranged with foliage. He had a mixture of scarlet and crimson Cactus Dahlias, with bronze and variegated foliage. Mr. P. W. Tulloch was second; he had deep orange Cactus with bronze and green foliage. Mr. F. G. Oliver, Tollington Park, was third.

The best three vases of blooms of Cactus Dahlias, also arranged with foliage, were from Mr. Tulloch, who had in good character Mrs. E. Mawley, Lucifer, and Mrs. Carter Page. Mr. E. Mawley was second, also with good blooms, and Mr. R. Edwards third.

Next came three classes for those who had never won a prize at a show of the society. With six blooms of show and fancy varieties Mr. J. Newman, Kingswood, Bristol, was first.

NEW DAHLIAS.

First-class certificates were given to POMPON VARIETIES.—Edna, yellow, with faint bronze margin, and Queen of Whites, both from Mr. Charles Turner, Slough.

CACTUS VARIETIES.—H. W. Sillem, large, crimson-red, from Mr. H. Shoemith, Westfield, Woking; Sirius, splashed red and gold; Mrs. H. L. Brownson, fawn colour; Pearl, rich pink; Florence M. Stredwick, white, splendid form; and Mrs. J. W. Wilkinson, deep rose; all from Messrs. J. Stredwick and Son, Silverhill Park, St. Leonards.

SINGLE.—Princess of Wales, rose-pink. From Messrs. J. Cheal and Sons, Crawley.

Mr. C. G. Wyatt gave a lecture on "Judging Cactus Dahlias."

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ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 90, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Names of plants.—A. T. Maw.—1, *Acer Negundo*; 2, possibly an *Amelanchier*, but without flower, fruit, or description it is impossible to say positively; 3, *Berberis vulgaris* (common Barberry); 4 and 5, *Phillyrea media*; this varies considerably in the shape and serratures of the leaves; 6, *Acer Negundo variegata*; 7, *Mespilus Smithii*; 8, one of the cherries, but cannot name from such a specimen; 9, *Campanula carpatica*; 10, *Thujopsis dolabrata*.—Medway.—The Oak is *Quercus dentata*, a native of Japan; the other specimen was, unfortunately, too small for identification.—R. Hooper.—1, *Virginalis Foke* (*Phytolacca decandra*); 2, *Gentiana asclepiadea*.

Destroying ants (A.).—Try *Beetlecut* for ants. You can get it from Messrs. Burgoyne, Burdidge and Co., 16, Coleman Street, London, E.C. It has been strongly recommended to us.

W. M., Aylth.—This is probably due to the trees being in a poor wet soil or natural decay. Your first letter must have gone astray.

Ornithogalum nutans (A. M., Ambleside).—We are quite unable to account for the non-flowering of the above. Usually it is a troublesome plant in gardens, and we can only imagine that some peculiarity of your soil may account for it. In the soil you describe the plant should grow, increase, and flower quite well. It is rather late for the operation, but you may give it a trial, and at once lift some of the bulbs, provided the new roots are not yet emitted, place in a dry, airy shed or outhouse, and, after a month's rest, replant them in well dug ground and in a perfectly open position. In not a few instances we have in mind the plant succeeds well at the base of a sunny wall, and if you have such you could replant a portion of the bulbs in it. Four inches deep will be ample for the bulbs, and a little bone-meal or old mortar will do no harm mingled with the soil.

Phloxes falling (E. HUTCHINSON).—We can find no apparent cause in the example submitted why the Phloxes should have failed. Yet we surmise the actual cause to be either general deterioration of the plant or clump from long occupying the same position, or to wireworm, or other mite-boring insect having early attacked the stem near the ground. We note the stem sent is much underized, as though attacked quite early in the season. You give no idea as to whether the falling stems are near the centre of the clump, or if, indeed, they occupy any special position at all. And you do not state the length of time the plants have been in position. These herbaceous Phloxes are not likely to suffer in such a soil as you describe if generously treated. What these things prefer is replanting now and then, coupling the operation with deep digging and heavy manuring. In these particulars you can hardly err on the side of generosity. If, however, the soil is heavy and of a close, tenacious character, a good dressing of road grit or fine mortar rubbish would assist to better its condition. We advise you to replant the Phloxes, discarding all the woody internal portions of the clumps, and selecting the outer and more vigorous stems. Plant these singly to the extent of five or so over a ground area of 18 inches. Such work may be done in September or October, and in this way a good flowering may be ensured next year.

Clove Carnation (SPEEDWELL).—The old Clove is merely a garden form of the border Carnation, a group that has been brought to its present perfection through generations of cross-breeding and selection from seedlings. The above, in point of fact, possesses no Latin name, but the progenitors of this now famous race is known botanically as *Dianthus caryophyllus*, a species in the wild form, which is quite single-flowered. Therefore, the entire race of Carnations is technically *Dianthus*. The name has fallen into disuse, and the more popular names, as *Clove Carnation*, *border Carnation*, *tree Carnation*, *Plottee*, &c., serve to both classify and indicate the types to which the names refer. You will obtain what you require by using the term old crimson *Clove Carnation*, as no plant is more popular or better known. The best way to secure a bed of this plant in flower next year is to obtain freshly-rooted layers in September or October, and if the Carnation is quite hardy in your district, and will stand the winter, plant in a well-prepared bed at once. If you have doubts about the complete hardiness of the plants, we then advise that you pot the plants in pots of 4½ inches diameter, and place them in a frame for the winter season, or, instead of planting in pots, you may plant them in the frame in prepared soil. In March or April, 1904, you could then lift them, each with a large ball of earth and roots, and arrange them in the flower bed previously prepared for their reception. In this way you would be sure of good plants. The soil of the bed should be 18 inches deep at least, and best if of good loamy soil and much fibre with it. Well rotted manure from the stable may be dug in and so placed that it will be 9 inches from the surface of the bed. This work should be done in the autumn. Just before planting time you may give a liberal dressing of bone-meal on the surface, and lightly dig it in when putting in the plants. These should be planted quite firmly, and given a good watering if the weather is dry

at the time. By following this method you should secure a good display of flowers. Other good sorts are:—*Alice Ayres*, *Ketton Rose*, *H. J. Cutbush* (scarlet), *Pride of the Garden* (rose), *Lady Waidie Griffith* (crimson-claret, *Clove* scented), *Hon. Harry Escumbe* (yellow), *Lady Tweedmouth* (terracotta), *Miss A. Campbell* (soft yellow), *Hon. Adele Hamilton* (rose-pink), *Mrs. E. W. Mather* (yellow and pink), *Uriah Pike* (crimson, *Clove* scented), *Dundas* (scarlet, very free), *Countess of Paris* (very fine), *Glory de Nancy* (pure white, *Clove* scented), &c. A beautiful white is *George Maquay*.

Filbert trees falling (R. F. B.).—As regards the tree which appears to be dead, we think it futile to try and restore so old a specimen, and would prefer to clothe its trunk by planting climbing flowering plants and *Virginia* creepers at its base. Some of the best subjects for this purpose are the early and late Dutch *Honeysuckle*, *Clematis* *Jackmanii*, and *Montana*; some of the strongest-growing *Roses*, such as the *Crimson Rambler*, *Almée*, *Virbelt*, or *Reine Olga de Wurtemberg*. Should you prefer to try and restore the old tree, the best way to set about it will be to cut away some of the dead wood, including the decayed part of the limb spoken of, putting on this a patch of thin lead to prevent water penetrating the trunk of the tree. Take 6 inches of the surface soil off for a distance of 5 feet round the stem. Give the tree a good soaking of liquid manure from the stable-yard if available; if not, dilute the water with *Peruvian guano*. A good soaking should be applied every other day for a week to make sure that the roots have been reached. Afterwards, top dress the roots to the depth of 5 inches with ordinary garden soil, to which has been added its own bulk of rich, well-rotted manure. The other two trees should have all the dead wood cut out, and where branches have been removed the cut part should be covered with thin lead sheeting, fastened into the trunk with brass nails. This will prevent the ingress of water, and arrest the further decay of the trees. Serve these the same, as regards watering and top dressing, as advised for the sickly or dying tree.

American blight (AMATEUR).—Point No. 1: It will be sufficient to paint the diseased spots with the emulsion in winter only, keeping a sharp look-out in spring for the reappearance of the blight before it can communicate itself to the young growth. Apply the emulsion on its first appearance. If this is continued with persistence during the summer freedom from its future ravages will be obtained. Should it happen that neighbours have trees similarly affected, it is a hopeless task to quite get rid of this pest, as by means of high winds it may be communicated from one garden to another, though they may be situated a quarter of a mile apart. In Germany and some other parts of the Continent, where the fruit crops of the country are considered of great importance by the Government, laws are enacted compelling owners of orchards and gardens, under a heavy penalty, to keep their trees free from this and other pests. An agitation has been recently set on foot in England favouring a similar enactment, and until this is enforced immunity from this troublesome pest will never be effected. Point No. 2: The turf need not be burnt. This blight, as far as is known, winters in the bark and crevices of the trees, and does not injuriously affect the turf. After taking up this should be heaped up into a stack, and in the course of four or five months, when the grass has perished, it will be found a useful and valuable mould for planting trees in or for potting. The ground round the trees after the turf has been taken off should receive a good soaking of manure water from the stable or cowyard. Afterwards, when the ground is comparatively dry, the surface should be forked over to the depth of 2 inches or 3 inches, and the top-dressing previously recommended should be applied. Spraying is effective against the ravages of green or black fly and against mildew, but not so effective against this blight.

Herbaceous borders (J. PRICE).—In the first place, the entire area to be devoted to the above should be deeply trenched and heavily manured. September and October are good months for the work, especially if the more showy things are desired. At the same time, the above season permits of the inclusion of bulbous plants as well as the usual hardy flowers in variety. As you appear to have ample space you should be able to accommodate the bolder things, which in other circumstances would have to be excluded. Of these we may mention *Bocconia cordata*, *Hollyhocks*, *Helenium nudiflorum*, *Helianthus orgyalis*, &c. These, when established, save the *Hollyhock*, would be 5 feet or 6 feet high. We think the best way of advising you will be to give a section of the border arranged with the plants in position. We note the borders are in parallel lines. This need not prevent you from placing the groups of plants irregularly if you prefer it to the straight lines. To group it in any less formal way a good knowledge of the established plants is necessary. Assuming the 5 yards is wholly at disposal, we suggest the following as a sectional portion arranged: In the back line, take *Helenium nudiflorum* (crimson and yellow), *Bocconia cordata* (creamy buff), and *Hollyhock* of a rose shade. These are bold subjects, and should not be closer than 3 feet asunder. Alternating with these in the next row, which should be at least 3 feet from the above, taking the centre of plant as the line, should appear *Aster cordifolius elegans*, *Helianthus multiflorus* var., *Aster arcturus*, and *Lathyrus latifolius roseus*. Again, in the same way in the third row, *Lilium testaceum*, *Harpalium rigidum*, *Anemone japonica alba*, *Aster turbinellus*, and *Lilium candidum*. In the fourth line, *Aster horizontalis*, *Doronicum Harpur Crewe*, *Galearia candelabra*, and *Achillea Ptarmica flore-pleno*. In the front line, *Geum coccineum*, *Heuchera sanguinea*, *Aster alpinus*, *Tiarella cordifolia*, and *Iris nudicaulis*. Then by carpeting the foreground and permitting the plants to spread towards the front row with *Sedum*, *Saxifrage*, *Aubretia*, *Pinks*, &c., you may secure a border showy and good, and with a considerable profusion of bloom. We will now give you a list of plants with their approximate height, although it seems necessary that you should have expert advice either on the spot or a plan to work by to obtain a good effect on so large a scale. The following are plants of 5 feet high or more:—*Aster Novi Belgii*, in variety, *A. N. Angliæ* in variety, *A. cordifolius*

var., *Helenium nudiflorum*, *Bocconia Hollyhock*, *Campanula pyramidalis*, *Delphinium*, *Helianthus multiflorus* (various), *Polygonum* (tall kinds), *Kniphofia* (various), *Helianthus orgyalis*, *Pyrethrum serotinum*, *Eremurus robustus*, *Iris ochroleuca*, *Aconitum Flaberi*, *Cimicifuga*, &c. The following are 3½ to 4½ feet:—*Achillea eupatorioides*, *Campanula lactiflora* and var., *Aquilegia chrysantha*, *Lilium testaceum*, *Asters* (perennial, various), *Acanthus*, *Eryngium*, in variety, *Eremurus himalaicus*, *Thalictrum* (tall kinds), *Galearia candelabra*, *Phloxes* (various), *Iris sibirica*, *perennial* *Pea* in three kinds, *Helenium*, *Aconitum*, *Astilbe rivalaris*, *Lupinus*, *Verbascum*, *Sidalea*, *Spiraea Aruncus*, *Veratrum*, *Echinops*, *Lilium candidum*, *L. croceum*, *L. speciosum* in many beautiful kinds, *L. Martagon*, and *L. tigrinum* in three vars. The following are from 2½ feet to 3 feet high:—*Phloxes*, *Gladiolus Lemoinei*, *Agrostemma*, *Achillea*, *herbaceous* *Peonies* in variety, *Lychnis chalcedonica*, *L. vespertina plena*, *Incarvillea*, *Montbretia*, *Columbines*, *Campanula grandis*, *C. persicifolia* var., *Doronicum*, *Stenactis speciosa*, *Trollius*, *Veronica subaequalis*, *Oriental Poppies*, *Chrysanthemum maximum* of sorts, *Rudbeckia purpurea*, the taller varieties of *Iris germanica*, *Gaillardia*, &c. Of still smaller things are the dwarf *Iris*, also the bulbous *Iris*, *Alstromeria*, *Fritillaria*, *Anemone sylvestris*, *Pyrethrum* (various), *Potentilla*, *Polemonium*, *perennial* *Cornflowers*, *Lychnis Viscaria* var., *Lenten Roses*, *Geums* (various), dwarf *Columbines*, *Rudbeckia Newmanii*, many *Narcissi*, *Anthericum*, *Inula glandulosa*, *Campanula carpatia*, *Coreopsis*, *Heuchera*, *Hemerocallis* of sorts, *Carnations* in variety, *Physalis capensis*, *Statice latifolia*, *Doronicum caucasicum*, &c. While of still dwarfier things in the front line are *Adonis*, *Hepatica*, *Primulas*, dwarf *Phloxes*, *Arnebia*, *Asters*, *Scilla*, *Christmas Rose*, *Muscarias* of sorts, *Narcissi* (various), *Chionodoxa*, and many more, apart from the carpeting of quite dwarf things already given. You must quite understand how difficult it is to advise without seeing the garden, but we have done the best we can. You might introduce *Roses* into the border—*Marie van Houtte*, *Edith Gifford*, and the scarlet *Princesse de Sagan*.

TRADE NOTES.

INTERESTING INVESTIGATION.

MR. JAMES L. WOOD (of William Wood and Son, Limited, specialists to His Majesty the King) is about to visit some of the principal places in the North on his way to Scotland, where he will investigate the results of fungoid and other diseases on the various crops this season, and the effect that "Velthe" has had upon them. For this purpose it is his intention to traverse the country as far north as Inverness, and afterwards proceed to Ireland. During his journey Mr. Wood will be pleased to make special calls. Consultations may be arranged for by letter addressed to William Wood and Son, Limited, Wood Green, London. A very concise pamphlet has been published by the firm, entitled "The Rational Method of Treating Fungoid Disease." The book is sent post-free on application.

NEW DAFFODILS.

THE beautiful new hybrid *Daffodils* described in Messrs. Barr and Sons' catalogue are the result of many years of labour in cross hybridising. Among them we notice *Peter Barr*, the largest and purest white trumpet *Daffodil* yet raised. Messrs. Barr and Sons' catalogue also contains some valuable practical hints to amateurs on the cultivation of the *Daffodil*, which should be read by all growers of this spring flower.

GARDENING APPOINTMENTS.

MR. W. HARP, gardener at Shirley House, Shirley, Croydon, succeeds Mr. George Sage as head gardener to Marquis Camden, Bayham Abbey, Lamberhurst. He enters upon his duties early in October.

MR. E. GUILF, for the past six years foreman at Ascott, Bucks, under Mr. Jennings, and formerly at Iwerne Minster Gardens, as head gardener to Carl Meyer, Esq., Short Grove, Newport, Essex.

PUBLICATIONS AND BOOKS RECEIVED.

Journal of the Portuguese National Horticultural Society (May and June), Agricultural Experiment Station, Kingston, U.S.A.; Fifteenth Annual Report, Michigan State Agricultural Society Experiment Station; Fertiliser Bulletin, by Floyd W. Robinson; The Living Plant: A Popular Book on Botany, by A. E. Knight and Edward Step, F.L.S., Part I, price 7d. nett, Hutchinson and Co., Paternoster Row.

We have received from Messrs. George Newnes the *Wide World Magazine*, *The Captain*, *The Strand* and *Sunday Strand Magazine*, and the nineteenth part of the *Century Book of Gardening*.

The September number of *The Studio* will contain two articles upon the subject of the late Mr. Whistler, and a number of important illustrations of his works, including three reproductions in colours and other supplemental plates.

CATALOGUES RECEIVED.

Bulbs.—Messrs. Fisher, Son, and Sibray, Handsworth Nurseries, Sheffield.

Bulb Catalogue for 1903.—Messrs. J. Veitch and Sons, Limited, King's Road, Chelsea, London.

Bulbs and Strawberries.—Messrs. Vilmorin and Co., 4, Quai de la Mégisserie, Paris.

Carnations and Bulbs.—Messrs. Cutbush and Son, Highgate, N.

Flower Roots.—Messrs. Dicksons, 1, Waterloo Place, Edinburgh.

Tulips and Daffodils.—Messrs. William Baylor Hartland and Sons, Patrick Street, Cork, Ireland.

Carnations and Plottees.—Mr. Joseph Lambert, Dalmeny, Westmoreland Road, Southport, Lancs.

*. The Yearly Subscription to THE GARDEN is: In 15s.; Foreign, 17s. 6d.

THE GARDEN

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[SEPTEMBER 12, 1903.]

THE RIGHTS OF THE RICH.

LATELY the daily papers have been calling attention to many acts of vandalism committed by tourist visitors to Welbeck, Clumber, and St. Michael's Mount, showing that there has been abundant provocation for the restrictions now placed upon the privileges hitherto enjoyed.

Much thought is expended in the present day upon the sorrows of the poor and needy—and justly. It is time to look at the reverse side of the picture as well and consider for a moment the rights of the rich and noble.

Amongst savage peoples that tribe is barbarous indeed which does not honour a "covenant of salt." The traveller who is admitted to the hospitality of the tent fears no danger, yet he is at the same time aware that pains and penalties await the breaker of the pact. It remains, it seems, for modern civilisation to set at nought an unwritten law held sacred throughout the ages. No country is richer than our own in venerable historic homes, and, as a rule, all of these which possess any claim to public interest are most courteously and liberally lent on occasions for the enjoyment of all and any who may wish to become acquainted with their world-famed precincts. A feast of the eye is offered, and to enter the hospitable gates is to taste of the salt of the covenant. At least, therefore, the guest is pledged to good manners.

There is hardly a word strong enough to indicate the man who abuses the privileges placed at his disposal by the kindness of his betters, but therein, unhappily, lies the rub. A false morality has taught that in the genus Homo there should be no "betters," and clamours that the inherited possessions of the privileged few should belong of right to the many. The fallacy of such reasoning is shown plainly enough by everyday experience. We have but to recall the new-made grave at Hatfield to confess that by race and by position, by attainments and by character, there are men who stand head and shoulders above their fellows. So it always will be, and probably the most gifted are the foremost of all to acknowledge their own limitations.

An Englishman's home is his castle. The old adage is forcible, and we can hardly expect the lord of the castle to strip himself of every right which it is the glory of the lowliest English cottager to call his own.

Public gardens and parks are to a certain extent held inviolate by the disciple of so-called Liberty, Fraternity, and Equality. By a fine stretch of imagination he claims a sense of private ownership therein on account of an infinitesimal fraction of rates or taxes which may—or may not, as the case happens to be—pass from his pocket into the Government treasury, and woe be to the heedless lad whom he catches infringing in the smallest degree on his "rights." The same person, when allowed by the courtesy of its owner to visit a beautifully laid out garden or park, will forget all about rights, and, when the back of the custodian is turned, will help himself to flowers or stealthily pilfer fruit which he takes good care to secrete, or in other senseless and ill-bred ways oversteps the limits of his invitation. So he and his brotherhood by continual reiteration of such petty annoyances, at length weary out the kindness which—often at considerable self-sacrifice—has thrown open private gates, and they are closed upon the decent public, who are thus debarred from much pleasure and profit.

We would fain believe that only a very small proportion of English men and women come under such a category. It is, however, undoubtedly the case that holiday makers—and not always those alone who belong to the "tripper" class—do seem, for some occult reason, to lose their heads and their good manners completely, and often conduct themselves in a fashion of which they themselves would be ashamed under everyday conditions. Sheer exuberance of spirits may account in a measure for such thoughtlessness, but, unfortunately, it is too late to repent when the mischief is done. Hospitable gates once closed by reason of trespass do not easily reopen.

It has been suggested that more stringent rules should be made compulsory, but though the power of legislation is mighty, it is not almighty, as we are very apt nowadays to think. Reformation must come from within, in most cases, rather than from without. There is, however, too much sound common-sense, not to say good feeling, amongst us as a nation not to bring strong public opinion to bear upon and put an end to such wanton misdoings as have been reported from Welbeck and Clumber. The vast majority of good citizens understand perfectly that traditional mansions and grounds are opened to them not of right but of the kindly feeling and courtesy of their owners, and repay it by the measure of their self-controlled enjoyment and appre-

ciation. Against sightseers of this worthy type we feel sure that the historic gates of Great Britain will never be closed.

SHREWSBURY FLORAL FETE.

AN APPRECIATION.

THIS great exhibition combines many examples of the best gardening in Great Britain, not in isolated sections, but it includes almost every plant the gardener can grow, and offers liberal and tempting prizes for their production. Thus is annually brought together, at enormous cost of money and labour, a horticultural exhibition of such magnitude, interest, variety, and beauty of garden produce as can hardly be seen anywhere else. I think it may with justice be said that a great exhibition such as this undoubtedly is is well deserving of the term "national," and nothing would rejoice the hearts of British horticulturists more than to hear of the great service it has rendered to the national industry of horticulture being recognised by the bestowal of a Royal Charter. Some who are unacquainted with the value of the work so unostentatiously but successfully carried on for the past twenty-nine years may be inclined to ask what entitles it to this great honour. The best answer to this question I think can be given by briefly drawing attention to some of the more prominent features of the exhibition held on the 19th and 20th ult., in many respects the best of a long series.

Taking the plant section first, in the class for large specimen plants there are brought together such examples of British skill in the art of plant growing as are never seen at any other exhibition. Take again the art of grouping plants for artistic effect, at no other show is this important aspect of gardening more encouraged or a better exposition given of plant arrangement. It was the general opinion of those well able to judge that in the tent in which these plant exhibits were arranged a richer or more diversified collection had never been seen before in one tent at this time of the year.

It would take too long and occupy too much of your valuable space to place before your readers in anything like detail the many interesting and varied aspects of this show, and I will only refer briefly to its more important features. The remarks I have made as regards plants refer only to the great open class; there are other classes provided for all manner of plants in season, and every one was well filled. The cut flower section embraces every flower which may be had in bloom at the season, from the rarest Orchid to the commonest hardy flower. We often hear of the great stride which has taken place of late years in the improvement of hardy herbaceous plants. Hearing is one thing, and seeing is another. At Shrewsbury this is forcibly demonstrated in the rich, varied, and extensive collections brought together. It is not only high quality and variety that are encouraged, but what is of equal, if not greater importance, the art of putting them together in the most natural and artistic way. To this end handsome and valuable money prizes are offered. In respect to bouquets, epergnes, baskets, wreaths, and flower designs such as harps and anchors, &c., perfection has almost been attained.

In one class, and that an important one, in the cut flower section, I mean the one in which nurserymen compete for honours, there is, in my opinion, ample scope for improvement. They are usually arranged in huge banks at a particular angle, like the roof of a house, and packed far too closely together, with little or no thought as to harmony of colouring, yet the material at hand at that time of the year is practically inexhaustible.

In the classes provided for fruit a generous provision is made in the way of prizes and cups and medals, from the great classes for Grapes and collections of fruit to single dishes of every kind and variety grown. No section of the show is invested with greater interest, especially to gardeners, than the Grapes and the decorated tables of fruit by the crowds surrounding these tables. They are a source of interest to the public as well. These decorated tables are gems of the gardener's art, and to Shrewsbury, I believe, belongs the credit of instituting them. For the kitchen garden and hardy fruit department of the show the provision of prizes is as generous and liberal as in the other sections, and the response by exhibitors as good. The humble vegetable may suffer somewhat in attractiveness when displayed in association with flowers and fruit. Its intrinsic value to the nation is, however, as great, if not more so. Were this great exhibition merely to be considered as a show to satisfy the curiosity and minister to the fleeting pleasure of visitors it would answer as useful a purpose in this respect as the produce of any other art or industry in the kingdom, but above and beyond this it is not too much to say that its influence is immense and far-reaching. Many a budding Paxton, a Thomson, a Baines, and followers of the great gardeners owe the inspiration of their lives to excel in their calling to the examples of splendid culture seen at Shrewsbury. As regards the public, who annually attend the show in scores of thousands, who can state the value of the pleasure thus brought into their lives? It is a source of interesting conversation from one year's end to the other in the county, and, indeed, throughout the country where gardening is thought or talked of, and a strong incentive to many to engage in the work itself as a recreation.

To working men who may possess a garden (may the day soon dawn when every one will) the encouragement given by this show to the cultivation of hardy fruit and vegetables is of the greatest value in their simple lives, encouraging them to apply their leisure to a healthy and interesting pastime, in which the whole family may associate and help, and resulting in materially swelling their slender incomes by the value of the crops they produce. It is because of the paramount and permanent success this show has attained, and in consideration of the great value of its work to the nation, that I think were its services better known it would not be long before it received the coveted distinction and honour of a Royal charter. The exhibition is managed throughout by a body of gentlemen for the love of the work without fee or reward. Besides paying away thousands of pounds every year in prizes and other contingent expenses of the show, the committee and honorary secretaries have been enabled by the great financial success of the show to devote a large sum to the improvement of the quarry ground where the show is held, to the erection of a handsome monument to the memory of their distinguished townsman, Charles Darwin, and in many other ways have benefited the good old town of Shrewsbury. T. E.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

September 15.—National Dahlia Society (Committee Meeting); Royal Horticultural Society (Meeting of Committees), twelve noon; National Rose Society (Special Meeting to consider alteration of date of Metropolitan Exhibition).

September 16.—Hull (two days); London Dahlia Show at Earl's Court Exhibition (two days).

National Rose Society—alteration of date.—There has been a ready response to the appeal to the members of the National Rose Society which we published last week (page 161). The Rev. Joseph H. Pemberton, Havering, Essex, writes: "May I ask those members of the National Rose Society who have not received the circular, and who, approving of the memorial, desire that their names should be added, kindly to communicate with me." There is no doubt whatever that a later date should be chosen, judging from past experiences.

National Dahlia Society.—By permission of the Royal Horticultural Society an inspection by our committee of the Cactus Dahlias grown for trial at Chiswick will be held at Chiswick Gardens on Thursday next, at 2 p.m. A prize of 10s. 6d., the gift of Mr. A. Dean, will be awarded to the raiser of the best variety for garden decoration.—P. W. TULLOCH, *Hon. Secretary*.

Royal Horticultural Society.—Exhibition of edible fungi.—On Tuesday next the above society will hold an educational exhibition of edible fungi in the Drill Hall, Buckingham Gate, Westminster, 1—5 p.m., and an illustrated lecture upon them will be given by Dr. M. C. Cooke, M.A., V.M.H., at three o'clock. All interested in extending or acquiring the knowledge of the edible species are invited to send collections. Collections should, if sent, be delivered at the Drill Hall on Monday afternoon next, or if brought should arrive at or before 9 a.m. on Tuesday, so that they may be properly grouped and arranged by the fungus specialists. Intimation of an intention to exhibit should, if possible, be sent a few days before to the secretary, Royal Horticultural Society's office, 117, Victoria Street, Westminster, S.W.

Fruit and Vegetable show at Chiswick, September 29, 30, and October 1.—Alteration in schedule. The prizes offered in class 52 for Apple Charles Ross will be open to nurserymen and market growers, as well as to gardeners and amateurs, see Division V., page 24. Intending exhibitors at this show can obtain a copy of the schedule, with the official entry form, on application to the secretary, Royal Horticultural Society, 117, Victoria Street, S.W. Entries for this show close on Tuesday, the 22nd inst. At a general meeting of the society, held on Tuesday, the 1st inst., twenty-two new Fellows were elected, making a total of 1,117 elected since the beginning of the present year.

The Edinburgh show.—Our correspondent wires that the exhibition of the Royal Caledonian Horticultural Society, held on Wednesday and Thursday last, was one of the best held of late years, so that the adverse season we have experienced has apparently not affected fruit crops in the north to the same extent as in the south and midlands. The best Apples in competition for the Malcolm Dunn Memorial Cup were shown by Mr. Sinclair of Congalton. In the class for a decorated table of dessert fruit Mr. Goodacre won first prize for fruit and third for decoration, and Mr. Kidd, Carberry Towers Gardens, was first for decoration and second for fruit. Mr. Goodacre was first in the class for ten dishes of fruit, and Messrs. Buchanan, Kippen-by-Stirling won first prize for six bunches of Grapes. A full report will be given next week.

Chrysanthemum show at Dumfries.—For the first time for many years a Chrysanthemum show is to be held at Dumfries on November 18. The show is promoted by the Dumfriesshire and Galloway Horticultural Society, and from the preparations being made in the district it is expected that there will be a good show of Chrysanthemums and other flowers of the season. The show is "open to all," and there are classes for fruit and vegetables, in addition to those for Chrysanthemums, zonal Pelargoniums, Begonias, Primulas, and other winter-blooming plants. Mr. R. G. Mann, *Courier* office, is the secretary. The band of the Grenadier Guards has been engaged to supply the music for the day.

A good Apple crop.—In this year of the failure of hardy fruit I wish to say that in my garden Apples are a good all-round crop, which is quite an exception in the district. The garden

slopes from east to west, the soil is a light loam over chalk, and the Apple trees are bushes grafted on the Paradise. The crop last year was above an average. To the garden there is no shelter, so that it is fully exposed to the sun, and also to all the winds of heaven. It is to this open position, affording plenty of light and air to the plants, to proper summer pruning, and to the daily visits of numerous bees that I attribute the result. The only fault I have to find is that the large Apples now fall faster than they should do; but is this to be wondered at with such storms of rain and wind? The crop is not special to a few sorts, but is fairly distributed. The varieties grown are mostly the following: Worcester Pearmain, Lane's Prince Albert, New Hawthornden, Cor's Orange Pippin, Bismarck, Beauty of Bath, Cor's Pomona, Ecklinville Seeding, Stirling Castle, Bramley's Seedling, and Tower of Glamis.—W. R. MAYFIELD, *Meopham, Kent*.

Mr. W. B. Hemsley, F.R.S.—It is a great pleasure to know that Mr. Hemsley has been appointed to assist Sir Joseph Hooker in his labours connected with the *Botanical Magazine*. We have heard rumours that this famous magazine was about to cease publication, but with Mr. Hemsley to help Sir Joseph Hooker it is hoped that the rumours are without foundation.

Mr. W. B. Latham.—With reference to the complimentary dinner and testimonial to be given to Mr. Latham upon his retirement from the Birmingham Botanic Gardens, a general meeting of subscribers will be held at the Athletic Institute, John Bright Street, Birmingham, on Monday evening next, at eight o'clock, to consider and decide upon the form of testimonial to be presented. Comments or suggestions from subscribers invited.—J. HUGHES, *Hon. Secretary*.

Solanum crispum.—The beautiful photograph and notes of the above plant (page 149 of *THE GARDEN*) are very refreshing to those who grow this Solanum. I think it is much harder than most readers of *THE GARDEN* are aware. I have seen it growing out of doors at Henley-on-Thames. In St. James's Garden, West Malvern, it was full of flower last week and 15 feet high. There it has had no protection since it was planted, and it is out back very severely every year with the knife. Also it is growing in Messrs. R. Smith and Co.'s nursery, Worcester, and in the Cambridge Botanic Gardens Mr. R. J. Lynch grows it in the corridor, where I have seen it fruiting. In each instance it has been planted against a wall or fence.—W. HORSMAN, *Laugherne Road, Worcester*.

Lælia elegans at the Woodlands, Streatham.—This natural hybrid is not appreciated nearly as much as its beauty deserves. At this season of the year no Orchid can compare with this in beauty and variety. The Woodlands is the home of this plant without doubt, and this year they are even finer than in previous seasons. Mr. Measures finds no difficulty attending their culture. They grow and flower under Mr. Measures' head gardener's care with remarkable vigour. At the time of my visit about 2,000 flowers were in full beauty, and some of the inflorescences must have been carrying quite a dozen or more flowers, the growths being nearly 3 feet in height. Such a show of *Lælia elegans* has never before been seen in cultivation in any country, or at any time probably, and what is eminently satisfactory is the fact that these beautiful Orchids improve year by year. Certainly this collection is finer now than it has ever been at any time previously. Many of the specimens of this *Lælia* are of huge size, and in robust health; so big are they, that they were named "King of the Woods," "Elephant's load," "The Giant," and other descriptive names by the original collectors of the plants in their native habitat. Among the finest varieties of this year for size and colouring are Maggie Hodgson, *Cyanthus superbus*, *Alexandrea* and *Edward VII*. The intense dark maroon purple of the labellum of the var. *Cyanthus superbus* is indescribable. *Matuta* Rupert, *Ivonia*, and *Sylvia* are also among the very finest, the latter being, both in size and colouring of the flowers, magnificent.—ARGUTUS.

Mesembryanthemum elegans roseum.—I got this from the gardens of the Royal Horticultural Society, and it is a subject admirably adapted for pot culture. It makes a free growth in gritty soil, and blooms at the points of the shoots; the colour is of a pleasing rosy pink, and the large blossoms are fully 2½ inches to 3 inches across. The flowers expand by day, but, as is common with many of the Mesembryanthemums, they close towards evening. It is a plant that will delight anyone who may be disposed to cultivate it.—R. D.

Ixora macrothyrsa.—Few autumn flowering stove plants can compare with this in brilliancy. The flowers are, in colour, widely removed from the ordinary garden varieties of Ixora, most of which claim parentage from *I. coccinea*. From their neat, compact habit they were at one time very popular for growing into specimen plants, but *I. macrothyrsa* is of entirely different growth. It forms a strong, upright, sparsely branched shrub, clothed with dark green, oblong lanceolate leaves, nearly a foot in length. The flower heads, which are equal in size to a well-grown Hydrangea, consist of an immense number of closely packed brilliant crimson-scarlet flowers. It should not be pinched in the endeavour to form a bushy plant, but is seen to the best advantage when carrying about three heads of its showy blossoms. Being of a tall, stately habit it is especially valuable for grouping. This Ixora is a native of Sumatra, and has been in cultivation here for about a quarter of a century. At first it was distributed as *Ixora Duffii*, a name under which it is still to be found in many gardens.

Costus speciosus.—This representative of the Ginger-wort family (the different members of which are, as a class, rarely met with in gardens) is just now flowering freely in the Nepenthes house at Kew, the heat and moisture of which provide it with a congenial home. Like most of its allies it forms a mass of thick fleshy roots, from which are pushed up stout Bamboo-like shoots, but of a succulent nature. These shoots, which reach a height of 4 feet to 5 feet, are clothed with pale green leaves, in the strongest examples nearly a foot long, and 4 inches to 5 inches wide. The inflorescence is particularly striking, the shoots being terminated by a cone-like head of reddish bracts, from whence the flowers are produced. These flowers, which are of a satiny white tint, and in texture suggestive of tissue paper, do not remain long in perfection, but a succession is kept up from one head for a considerable time. They are from 3 inches to 4 inches in diameter. This plant is a native of India, where it is said to grow in the vegetable debris collected in shallow water-courses and such spots. It was introduced as long ago as 1799. A second species in flower in the same structure is *C. igneus*, introduced from Bahia by M. Linden in 1882. It is dwarfier than the preceding, while the flowers are also somewhat smaller, but of an intense deep orange colour, which makes them very conspicuous. This species flowers at various periods of the year, and in the half-light of a dull autumn or early winter's day it is even more noticeable than at this season.—T.

Senecio Galpini.—This Senecio, just now flowering freely in a cool house at Kew, is one of those uncommon yet striking plants that one would expect soon to become popular. Such, however, is not the case, for outside of Kew, where it has been grown for about a dozen years, it is very rarely seen. The genus *Senecio* is a decidedly comprehensive one, some members of which differ greatly in general appearance from others, and anyone taking the common Rag-wort as the type would not recognise this species as belonging to the same family. It bears a considerable resemblance in foliage to an *Echeveria*, the leaves being of a thick, fleshy nature and very glaucous. The flower stems, which reach a height of 1 foot to 2 feet, branch freely, the flowers being borne on the apex of every shoot. They are disposed in a closely packed head over an inch across, of a brilliant orange colour, and not only remain fresh a considerable time, but a succession is kept up for some weeks. Though flowering freely just now at Kew, its period of blooming is not limited to this particular period

of the year, as it may be sometimes met with flowering there in the depth of winter. It is a native of the Transvaal, and, in common with many subjects from that region, a dry atmosphere is necessary to its well doing.—H. P.

Flowers in South Devon.—I notice that on the 8th ult. the Editor's table was brightened by a collection of flowers from Torquay, and that the sender expressed his surprise at the lack of tender shrubs and climbers in South Devon gardens. Villa gardens are certainly poor in this respect, but when villas are bought or taken on lease their proprietors as a rule care little and know less about flowers, hardly evergreen shrubs, bedding plants, and perhaps an *Araucaria* content them, not one in fifty realising and taking advantage of the possibilities of floriculture existing under the genial atmospheric conditions prevalent in the south-west. It is not in the gardens of Devon villas that one must look for what are generally considered greenhouse plants, though there are meritorious exceptions to the general rule, but in those attached to country houses, in many of which both rare and beautiful flowering shrubs and climbers are to be met with. In these *Rhynchospermum jasmoides*, *Swainsonias*, and *Clematis indivisa lobata*, spoken of by your correspondent, are by no means uncommon, and I have also seen the two other plants alluded to, namely, *Magnolia fuscata* and *Lonicera Hildebrandti*, though the latter has not flowered. Other tender subjects to be found doing well in South Devon gardens include *Embothrium coccineum*, *Callistemon*, *Abutilon vexillarium*, *A. vitifolium*, *Sollya heterophylla*, *Cassia corymbosa*, *Cesalpinia Gilliesii*, many species of greenhouse *Acacias*, *Philæa buxifolia*, *Crinodendron Hookeri* (*Triacanthopanax hexapetala*), *Boronia*, *Tasmania mollissima*, *Inga pulcherrima*, *Bigonias*, *Manettia bicolor*, *Mutisia decurrens*, *Mandevilla suaveolens*, *Mitrasia coccinea*, *Semele androgyna*, *Colquhounia coccinea*, *Lapageria*, *Clinanthus puniceus* and its white variety, *Ozothamnus rosmarinifolius*, *Eucryphia pinnatifolia*, *Guevina avellana*, and many more too numerous to mention.

Flowers for butterflies.—Many notes on this subject have appeared of late in the columns of THE GARDEN, but although Sunflowers, single Dahlias, Scabious, and *Sedum spectabile*, of which the last-named is certainly particularly attractive to butterflies, have been mentioned, the flower that is undoubtedly their favourite on sunny September days in the south-west has not been named by any correspondent. This is doubtless owing to the fact that the plant which bears it cannot be considered hardy. I allude to *Escallonia Montevicensis*, now known as *E. floribunda*. The white, pyramidal bloom panicles, though to the human sense of smell only very slightly scented, are irresistibly attractive to butterflies. On a bush barely 5 feet high and of about the same diameter I have counted over three dozen Red Admirals together with a few Peacocks and small Tortoiseshells. All day long the butterfly of September, the Red Admiral, may be seen in numbers with satin-black, vermilion barred wings outspread on the white flower clusters, a charming picture. Later on, when the *Escallonias'* blossoms have faded, the favourite plant is *Eupatorium weinmannianum*, great bushes of which, 8 feet high and as much through, bear the latest of their flat flower-heads well into December. Butterflies are also fond of the single China Aster (*Callistephus sinensis*). The Michaelmas Daisies are also much appreciated, but more especially by moths, the silver gamma often haunting the plants in hundreds. The favourite of all the Starworts with these appears to be the dwarf Aster *dumosus*.—S. W. FITZHERBERT.

The Humming-bird moth and scarlet Geraniums.—Lately some very interesting notes have appeared in THE GARDEN relative to moths and butterflies and the flowers they are most fond of. The cliffs and moors round here have, as long as I can remember them, been a favourite haunt of both, and I frequently in the summer meet men and boys with butterfly nets; but what a change this season, hardly a butterfly is to be seen about the place save a few odd white

ones. Along the drive in front of this cottage, for many years, during the summer, have been placed, at equal distances, very large pots filled with scarlet geraniums, and these have always been an attraction to the Humming-bird moths. As soon as the pots were put out dozens of these moths were fluttering round them, from dawn till sunset. When I was here at Easter (the first week in May) I was transplanting some Hollyhocks, and brushing against a small shrub out flew a Humming-bird moth. I wondered at seeing it so early in the season, but it was the first and last up to the present. For fifteen years they have always been in numbers round these plants. I suppose the wet season accounts for its absence.—A. H. TYRRELL, Peak Cottage, Sidmouth.

Flowers in Ravenscourt Park, Hammersmith.—In spite of the unpropitious weather the flowers in this always well-kept and attractive little park, under the able superintendence of Mr. W. B. Gingell, are worthy of note. To refer briefly to a few of the combinations: *Fuchsias* in an undergrowth of *Pansy virginialis*—a fine white—were an effective arrangement. A very fine bedding *Begonia* of the *semperflorens* type is Sutton's *Crimson Gem*, associated with the elegant *Grevillea robusta*, with its Fern-like foliage, and edged with *Iberis*, a pretty effect was produced. Noticeable were some French flowering *Cannas*, very dark foliage, used as a centre, banded with the broad silvery-white foliage of *Centaurea ragusina* (candidissima), and edged with *sempervivum*. Golden foliaged *Abutilons* served as an effective contrast to dark leaved *Iresines*. A good mixture was noted in *Begonias* and *Mesembryanthemum cordifolium* variegatum with its rosy purple flowers. *Lobelia cardinalis*, with its vivid scarlet flowers and intensely dark foliage, was relieved by *Phalangium variegatum*, edged with *Lobelia*. It was instructive to note the effective use made in various mixtures of that beautiful decorative plant *Francoa ramosa*, or *Bridal Wreath* as it is popularly called, a half-hardy perennial, with its elegant arching sprays of pure white flowers. *Fuchsias* on grass near the Public Library made a good feature, whilst the walls of this building were wreathed with the lovely bright *Ceanothus azureus*. A small conservatory adjacent was furnished with splendidly-flowered examples of *Campanula pyramidalis*, blue and white, amongst which the well-known *Salvia splendens* was interspersed. Effective use is made in the shrubberies—just now looking very gay—scattered about the park, of that fine New Zealand shrub *Olearia Haastii*, bearing a profusion of white Aster-like honey-scented flowers. It was pleasant to see a fine bed of beautiful *Pentstemons*, their prolonged flowering season making them valuable plants for the garden. A good piece of planting on one of the lawns was furnished by *Prunus pissardi*, remarkable for the beauty of its deep maroon-coloured foliage springing out of an undergrowth of *Acer Negundo* variegata. How striking were some glorious bushes of *Rosa rugosa*! In the winter effectively covered with bunches of large scarlet fruit—an excellent group of *Roses* for town.—QUO.

Asters in the West.—It was curious to notice that while at the Taunton flower show quilled Asters, generally a very fine feature there, were too poor in quality to deserve a prize, at Trowbridge, a week later, they were shown in astonishingly very fine quality for the season. There is probably something in the soil about Bath which suits the Aster, for Mr. W. J. Jones of that city was placed first at Trowbridge, with twenty-four blooms of quilled in one class, with twenty-four blooms of the Victoria type in another class, and the same number of Comet Asters in a third class, the blooms generally large, full, clean and well-coloured. The Comet and the Victoria Asters are the types which come in fine character without much special cultivation, provided the soil be good, but the quilled and Truffant's *Paony*-flowered require painstaking cultivation to have them in the finest character. It is because the *Paony*-flowered type requires high cultivation to develop the fine, full, symmetrically incurved character which is so attractive in the type that

it has largely fallen out of cultivation. The form of the flower is so distinct from that of any other type of Aster that it is most valuable as affording variety, and the plants are stately, and, like the quilled, the blooms are produced on long stems, and therefore of added value for cutting purposes; besides, the Peony Asters provide colours scarcely to be found in any other section. It is, therefore, matter for regret that Truffaut's Aster is actually falling out of cultivation. Annual Asters generally are now at their best in our gardens. Asters do not need continuous sunshine to bring them to perfection, they may be said to delight in heavy dews, and cloudy, but fine days with intermittent sunshine. Could we be favoured with a few weeks of such weather, Asters would rapidly recover from the paralysed appearance some plantations have taken on. A cultivator of my acquaintance finds his bed of quilled Asters of great value to him now and during the next few weeks, as he can cut large quantities of blooms, and the act of cutting causes the plants to make an effort to throw other flowers. The side blooms, which are in this way more plentifully produced, are especially suitable for vases, being on long, stiff stems, while the pure white Snowball and the delicate Unique are in contrast with Purple Prince and other deeper colours, though they are but few in comparison with the pale varieties of various shades. Probably the value of the quilled Aster in floral decorations within the house is not sufficiently appreciated, and although the quilled Aster is shown somewhat formally on boards, the blooms arranged in lines, their exquisite form and diversity of shade are always attractive. Flowers of quilled Asters will last for a long time in a cut state, and need but little attention. Those who are desirous of maintaining a high standard of quality in their strains should select a few of the finest blooms for the purpose, removing all side blooms from these plants, so that the whole force of the plants might be concentrated upon the production of plump seed grains pregnant with vitality.—R. DEAN.

Note from Jamaica.—A hurricane is by no means the all-destroyer that it is usually represented as being. The Jamaica garden which has been described in your columns is a wreck certainly, but the damage is of a spar here and there, and of a good deal of rigging; the deck remains sound, by which figure I mean that the damage to trees and small plants is incon siderable, and that the climbers have suffered most. The reason is that the dense mass into which these grow offers a wall-like surface to the onrushing wind, yet, not having the resistance of a wall, they are swept away, together with that to which they are attached. A hurricane gives a good lesson as to the advantages of solid structure. All the weak pergolas are down; the well made stand. The staunchest of trees are Palms, with the exception of Cocanuts, all the Orange family, Star Apple, Loquat, Grevillea, Champali, Apple, and Calabash. These have not suffered at all. Forest trees, on the contrary, have fared badly. Great limbs are wrenched from the Cedars (Cedrela) and Cotton trees, and the chief damage to small plants was caused by the boughs, which were hurled from far off into the garden. Otherwise the harm to small plants is surprisingly little. Lily clumps are stiff, Geraniums look less miserable than after a gale in England, Lavender bushes are neat and trim—even the fragile Impatiens Sultani is for the most part unharmed, while, strangest of all, a weak spike of Tuberose stands erect. The fable of Oak and Bulrush is everywhere exemplified. The stiff suffers where the limber escapes. The brittle Bread Fruit is mutilated and disfigured for a time. In a few months kindly Nature will heal the torn bark and fill up gaps with new shoots. Another sufferer is the Avocado Pear, which hangs down helplessly. Fruit of all kinds is blown off, yet some remains. Many trees have completely lost their leaves, though the Mangoes still hold most of theirs. Bananas are, of course, utterly swept away, and we shall have none for nearly a year to come. A moderate wind suffices to throw down most of these, and none can resist a severe gale. Roses have stood remarkably well, even

climbers getting no more than a salutary pruning. Oleanders, too, have escaped on the whole. The garden has lost its beauty for a time. It has not lost its interest—rather, it has gained some. We are at work clearing away debris, and there is the pleasure of seeing order evolved from chaos. And there is the new rapid growth to look forward to. Week by week the gaps will fill, and in six months at the latest the garden will be beautiful again.—W. J., Port Royal Mountains, 2,000 feet.

THE ROSE GARDEN.

ROSE FRAU PETER LAMBERT.

ALTHOUGH so many new Roses are of a pink colour, I think there is room for the above beautiful Hybrid Tea. It is said to be a pink Kaiserin Augusta Victoria, but it does not hold up its bloom in the same fashion as the splendid white Rose alluded to. There are, however, traces of the variety under notice having some of the nature of Kaiserin Augusta Victoria in its constitution; in fact, according to the raiser, a seedling which sprung from a cross with the Kaiserin and Caroline Testout was crossed again with Mme. Abel Chatenay, which accounts for the lovely salmon tint of the centre petals. The possibilities of this dual and treble crossing will entirely alter our collection of varieties, so much so that it is doubtful whether more than one half of the varieties now grown will be cultivated ten years hence.

GRUSS AN TEPLITZ AND GUSTAVE REGIS.

I DOUBT if two more useful Roses were ever raised than the above. The first-named is not of much account in the early weeks of the summer, but in August and September it is a glorious mass of colour. The rich maroon shading on the scarlet petals is grand, each flower like a moderate-sized Duke of Edinburgh. The splendid towering trusses of blossom, starting almost from the base and rising to a height of 3 feet to 4 feet, show up well on a spacious lawn, and the beautiful brown tender foliage serves as an additional charm to the mass. Whilst this Rose is quite hardy I would yet advise rather hard pruning, believing as I do that the plants are less subject to insect and fungoid pests, and they certainly have a better appearance when the growths are fairly uniform and not too straggling. Then, too, the fragrance is delightful, a point often overlooked by raisers. One truss I observed recently consisted of thirty buds and blossoms, not a close bunch, but spreading in a charming way. This Rose, too, makes a glorious standard or half-standard, which planters can turn to good account when making large plantations of the variety.

The other lovely Rose, Gustave Regis, I purposely named in conjunction with Grüss an Teplitz in order to point out its peculiar fitness to go with the latter. The canary yellow elongated buds and huge semi-double, almost white, open flower would make a fine contrast with the scarlet sort. I think we might do more of this dual bedding. I do not see any objection to it if harmonious contrasts are selected both in colour and growth, and certainly no two sorts I could name would make a finer mass. Plant fairly close and prune well.

ROSE MERCEDES (RUGOSA).

THIS beautiful Rugosa must become a general favourite. The flower is so shapely and of such a delicate colouring that it looks more like a lovely Tea Rose than a Rugosa. It reminds me of Blairi No. 2, but perhaps there is not quite so much colour as in that well-known Rose; in fact, it may almost be called a Perpetual Blairi. I do not mean to say it grows so vigorously, but I imagine that for an ordinary wall or as a standard it will be equally valued as the old favourite. Like many

pale Roses the flowers suffer in a wet season, the soiled outer petals detracting somewhat from the general beauty. Yet, being moderately double, the blooms expand easily. Mercedes and Conrad F. Meyer will long continue two of our best recent novelties, both being equal to any Hybrid Perpetual. Their vigour fits them for cold, blank situations, as they seem to possess the iron constitution of the type.

ROSE CLIMBING MME. DE WATTEVILLE.

THERE is something remarkable about these climbing sports of old and well-known Roses. Here we have a Rose sent out by that prince of Tea Rose raisers, M. Guillet, as far back as 1833, suddenly developing an extremely vigorous growth apparently as rampant as Maréchal Niel. We are much indebted to the discoverer of this new sport, which must take high rank among conservatory climbers. Who does not know the original, which, when well grown, is perhaps one of the loveliest of Tea Roses, as it certainly is one of the sweetest. To have a roof or back wall of a glass structure covered with the salmon-white, pink-edged buds and blossoms would be a feature in any establishment. I should hesitate to recommend the variety for outdoors, save on a very sheltered wall, for if it is one of the best it is also one of the most tender sorts.

PHILOMEL.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit tree, shrub, Orchid, or hardy flower, and they will be addressed to The Editor, 20, Tavistock Square, Covent Garden, London.

CARNATIONS FROM SEED.

Mr. W. A. Watts, Bronwylla, St. Asaph, has a superb gathering of Carnations from seed. The colours are very fine, and the flowers show signs of bursting, so great an evil in many varieties. A pure white should be named. The flower is large, but not coarse, with broad petals and a sweet fragrance. We also noticed a good yellow, a brilliant scarlet, a blush, and a yellow ground with pink edge, altogether a selection of which the raiser may well be proud.

SEEDLING PENTSTEMONS.

Mr. Beckett sends from the well-known Aldenham House Gardens, Elstree, a delightful gathering of Pentstemons, which he well says are difficult to beat in usefulness at this season. The spikes are tall and the flowers of good colours, a very bright and interesting series.

MRS. SINKINS PINK AND WALLFLOWERS.

A very fragrant contribution to our table comes from Mrs. Simonds, Audleys Wood, Basingstoke. It consists of a bunch of Mrs. Sinkins Pink, which are as fine as anything we have had in mid-June. Our correspondent writes: "I send you a bunch of Mrs. Sinkins Pink from a border which is full of bloom, and I am told they are rather unusual. The cuttings were wintered in boxes and put out this spring. We have had Paris Early Wallflower out a fortnight and more in full bloom, but it seems so out of season in a summer garden."

NEW ICELAND POPPIES.

Messrs. Storrie and Storrie of Dundee send a series of Iceland Poppy forms, all of very soft and pretty colourings. It is, as they describe it, quite a "new strain," and was certificated by the Royal Horticultural Society in June last. There must be

a great demand for flowers so delicate and beautiful in colour as these, soft buff, apricot, and shades we have not hitherto seen in this graceful Poppy.

THE STAR PHLOXES.

"Junica" sends flowers of the pretty Star group of Phlox Drummondii. They may be had in many colourings, and the shape of the flower is quaint and unusual, the petals narrow, long, and pointed, like a little star, and quite showy in the garden.

BRYOPHYLLUM CALYCINUM.

Mr. Kingmill, The Holt, Harrow Weald, sends leaves of the interesting Bryophyllum calycinum, with the following note: "Not beautiful, but very interesting, is the enclosed leaf of Bryophyllum calycinum, well named the 'Leaf of Life.' In May last I pinned it to the wall of my library, where it has remained until to-day (August 27), untouched and unaided in any way. A few days ago it had two bright green and healthy growths upon it, from the side notches, although, as you see, the leaf itself is dried up and shrivelled. One of these growths has just been accidentally knocked

effective little edging where such a good yellow is desired. Erica cinerea rosea is a brilliant flower. No Heath is brighter than this, and as beautiful in its way is the variety alba, E. vagans carnea, and E. alba, and the two beautiful Menziesias, M. polifolia alba and the intensely coloured atropurpurea, completed the series. We hope shortly to again publish several articles about the Heaths, but those written by Mr. Bean in the number referred to form one of the most important contributions to the subject hitherto published.

ANDROMEDA ARBOREA.

Mr. Anthony Waterer sends from Knap Hill, Woking, flowers of this beautiful shrub. It is a pity this is not more grown; its creamy colouring is very beautiful.

A NEW CARNATION—SUNSET.

Mr. James Douglas, Edenside Gardens, Great Bookham, sends a superb flower of a new Carnation called Sunset. It belongs to the fancy class, and is remarkably bright, a brilliant rose and grey. We

Apples; they are showing blossom when they should be bearing fruit."

LONICERA HILDEBRANDTI.

We are reminded of this remarkable species by flowers from Mr. Palmer, Blythwood, St. Mary Church Road, Torquay. Mr. Palmer writes: "My Lonicera Hildebrandti has now reached the eaves of my house. The large evergreen leathery leaves go well with the handsome golden flowers, and when the trusses have attained their natural size it will be a very fine sight."

EARLY CHRYSANTHEMUMS.

A most interesting contribution comes to our table from Mr. Crane of Highgate. It consists of five varieties of the beautiful Mme. Marie Masse group of Chrysanthemums. All the sorts are excellent for the border, being bushy, early, and very free and vigorous. They are as follows:—Horace Martin, yellow; Crimson Marie Masse, chestnut; Ralph Curtis, cream; Rabbie Burns, salmon-cerise; and Mme. Marie Masse the original, mauve. Mr. Crane also sends flowers of the Pompon Blushing Bride and Satisfaction.

A CURIOUS GERANIUM LEAF.

Mr. Hare sends a curious Geranium leaf, the segments joined together in the form of a cup. It is not unusual, but we record it as a contribution to this column.

A PURPLE-FLOWERED CARNATION.

Mr. Aylward sends from Bounds Green, New Southgate, flowers of a seedling purple-flowered Carnation, which is of a peculiarly bright colour. The plants are on a heavy clay soil sloping towards the south-east, and a two year old specimen has sixty buds after it has been disbudded. Wet weather has no effect upon it.

NOTES ON HARDY PLANTS.

EREMURI FROM SEED.

EREMURI, a race of liliaceous plants of noble stature, have proved sterling acquisitions indeed, and when one considers the few years they have been in cultivation, and their proverbial slowness of root increase, it is remarkable that they should be found so widely distributed, for every garden of repute has a representative specimen or two.

Like their close allies, the Asphodels, they are very slow in growth in the seedling stages, and their after growth and increase, though moderately free under the best cultivation, is not fast enough for those who would like to have them in quantity. Those who think the long wait of several years too much for their patience would find little difficulty in raising hundreds of Eremurus from seeds, provided they exercise the ordinary care which every plant from drier countries than our own invariably demands.

Fresh and ripe seeds are necessary for a good start, and they should be sown as soon as gathered and perfectly dried, and that as early in the autumn as the weather will permit. If the sowing is delayed till spring they will remain dormant and at the mercy of slugs and other insect life for the whole of that year, and the survivors will germinate poorly twelve to eighteen months from the time the seed was gathered.

For general purposes it is best to grow in the open, choosing a light sandy soil, raised somewhat above the general level to prevent undue saturation, and in order that the site may be perfectly dried



EREMURI FROM SEED. (From a photograph by Miss Willmott.)

off, and before a similar fate befalls the other I send the leaf to you as a natural curiosity. I also enclose a freshly-gathered leaf to be pinned upon your office wall. The side-growths will begin to show in about a fortnight."

We are afraid the atmosphere of Tavistock Street is likely to try even the Bryophyllum's tenacity, but it shall have a chance.

HEATHS FROM MR. ANTHONY WATERER.

Mr. Anthony Waterer, Knaphill, Woking, sends a few varieties of Erica with these truthful words: "These are a class of plant not half enough planted for effect at this season of the year." We dealt fully with the whole genus in THE GARDEN of last year, and this interesting contribution from Knaphill will remind our readers again of their beauty in the autumn months of the year. The varieties of Calluna (Erica) vulgaris were of great interest, especially the double form flore-pleno, which is rarely seen in gardens. Alportii, alba, and Hammondii are varieties that should be in every Heath collection. One named Aurea is of quite a good golden colour, and makes an

have never seen a fancy variety so rich in colour and so excellent in form. It was raised by Mr. Martin Smith, and is being sent out this year by Mr. Douglas. Our correspondent says: "It is a continuous bloomer, nearly all the plants now showing a second flower." Exhibitors of fancy Carnations and others interested in this class should add this to their collections.

APPLE BLOSSOM.

Sprays of Apple flowers come from Mrs. A. H. Tyrrell, Peak Cottage, Sidmouth, with the following note: "That this has been a bad fruit season is only too well known, and down here in Devonshire the Apples have been very badly hit. In place of trees covered with fruit the crops are very thin and hardly coloured at all, but passing through one of the best gardens here, where they grow a good many dwarf espaliers, some of the trees which usually bear well have in place of fruit bunches of blossom, some of which I send with this note. With regard to flowers of every garden kind, due to rain, most have made growth and shown very little bloom. Perhaps the same applies to the

when necessary. The seedling's first year's growth will be slight, and normally of two months' duration only—a tiny blanched leaf, a few inches long will be all that is noticeable, and this, under ordinary conditions, dies away before midsummer. It must be the cultivator's object, however, to prevent this happening so long as it is possible, and he can effect this by continuing to water and shade the site to keep it cool and moist as long as a perfect leaf remains. Thus encouraged, the seedlings continue to grow till August, when they will gradually go to rest for the season, a glazed light being placed over them to keep them dormant and dry. The need of thus encouraging the first year's growth to do its best is two-fold. In the first place the extended season of growth enables the seedlings to develop store roots twice the size they would normally make, and if not thus encouraged they go to rest with the first drought before or about midsummer imperfectly developed, and remain dormant till the cooler rains of autumn start them into growth again, and thenceforward there is trouble.

If covered with a light to keep them dry and resting, the period of rest is too long for such tiny roots to sustain unharmed, and if allowed to grow as they will their leaves just meet the full brunt of wintry storms, reaching their fullest development in March if they survive the winter, and the cold winds of that month play havoc with them.

With full encouragement during their growing season they make good growth during early summer, their root store is well maintained in early autumn, and they rest quietly through the early

winter, thus fitting their season of growth to the climatic conditions of this country.

Their second season's growth is merely a repetition of the first. It is not necessary to lift them, but better to leave them where they are. Should they develop leaves too early a light covering of litter will prevent serious damage to them. In the third year they will all form the characteristic forked rootstock of considerable thickness and produce several leaves. At this stage and when fully ripe they will be better for lifting and replanting in a richer soil for development into flowering roots. The length of time necessary for the excellent results shown in the accompanying photograph is a matter depending merely upon cultural skill. *Eremurus*, such as *himalaicus*, *robustus*, and *Elwesianus*, with thickened, rigid, cartwheel-like rootstocks, broad, bright green leaves, and stout stems will grow in any well-tilled and well-drained soil; but species such as *Bungei* and its hybrids, with *Olgae*, whose root-stocks are thin and very long leaves glaucous and narrow, and whose stems are slender, thrive best in a soil overlying limestone, or in ordinary garden soil freely dressed with weathered lime rubble, especially in the seedling stages of growth.

G. B. MALLETT.

HEUCHERA SANGUINEA.

On pages 129 and 130 of *THE GARDEN* a most interesting article appeared from Mr. Mallett respecting the best *Heucheras*. I note that Mr. Mallett remarks upon the poor constitution of *H. sanguinea* and the variety *splendens*, and with many growers

these two plants generally prove most disappointing, but having succeeded in growing and flowering both for several years past a few remarks respecting our method of cultivation may not be out of place. We have always found *H. sanguinea*, when planted in a sunny position, fail completely, and the best results have been obtained from a bed planted under an east wall where very little sun reaches it. In this position it grows and flowers with great freedom, the spikes averaging from 18 inches to 2 feet in length. We find division of the clumps necessary every two or three years, and copious supplies of water are given in dry weather. The soil is a good deep loam, and when replanting the border is deeply dug and plenty of sharp road grit freely incorporated, which *H. sanguinea* seems extremely fond of. A good top-dressing of road sand is given when the flowering season commences, and under these conditions it succeeds well. I should like to call attention to a new *Heuchera*, which I recently saw at the hardy plant nursery of Messrs. Ladhams at Southampton, as it appeared to me to be the finest of all. This was a variety of *H. sanguinea* named *Shirley*, which I believe originated at the above

nursery. It grows about 3 feet in height, with larger flowers individually than those of any other variety, very bright in colour, and the stems are so robust as to need no support. The soil in which it was growing was a poor and sandy one, and when given better cultivation much finer results still might be expected. This *Heuchera*, upon the production of which Messrs. Ladhams are to be congratulated, will be distributed next year, and I can recommend it as a good addition to our border plants.

A. E. THATCHER.

Aldenham House Gardens, Elstree.

ARGEMONE GRANDIFLORA.

I know few plants to be compared with this, yet I never meet with it. It is an old introduction; I grew it more than sixty years ago, and it was known to Dioscorides eighteen hundred years before that. What has induced me to mention it just now is that I have before my eyes at this moment a plant (I might almost call it a bush) at least 5 feet in height and 15 feet in circumference with not less than fifty flowers, each flower about 4 inches across. The flower has the effect of delicate dazzling white satin, with an orange tassel and black centre, not very unlike *Romneya Coulteri*, but without the intermixture of so much foliage. Though better raised in heat, it is perfectly hardy, not only in the southern counties, but in Northumberland, where I used to grow this variety as well as *A. mexicana*. It is usually grown as an annual, reaching the height of 2 feet or 3 feet, and flowering freely, but the large plant I am speaking of lived through the winter, hence its unusual size. I am the more induced to call attention to this plant because it has been so universally admired, and, strange to say, unknown to many of my garden friends. The contrasts between the *Argemone* and the scarlet *Tigridias* is very striking. A further recommendation is that the season lasts fully three months, with a continuous succession of flowers.

T. H. ARCHER-HIND.

Coombe Fishacre, South Devon.

NOTES ON SOME LATER-FLOWERING ALPINES.

The forms of *Silene maritima* are still showing plenty of bloom, and have been flowering since June. *Trifolium alpinum* is just fading. It is a plant seldom met with. The lovely heads of soft rosy blooms, resembling those of *Ononis rotundifolia*, but longer, are very distinct among the *Trefoils*. On the low and damp parts of the rockery near the walk our British *Mimulus luteus* is still showing a bright yellow. The now rather scarce, very dwarf *Oxalis lobata* is in good bloom in a partially shaded plunge-bed. Although a native of Chili, it proves to be perfectly hardy. The flowers are of a brownish yellow faintly spotted red.

Campanulas Profusion, *carpatica* and its forms, *rotundifolia* and its white form, with var. *Hostii*, *waldsteiniana*, and *tommasiniana* have still some bloom left. *Campanula Hendersoni* has produced one or two fine stems of large blue bells. Some consider this plant to be of miffy constitution, but given a well-drained soil in a sheltered position it seems all right, but I do not think it does well with frame treatment. *Geum Heldreichii* is a fine thing for long succession of bloom. When well grown its flowers are 1½ inches across, and of a vivid orange-scarlet.

Aster Thompsoni seems more suited to the rockery than the border. If put among the coarser growing *Michaelmas Daisies* it is almost sure to be lost, owing to its rather tardy growth and dwarf habit, besides the fact that the beautiful large lilac blooms are shown to the best advantage on rockwork. In a damp spot is *Parnassia palustris*. A more lovely dwarf bog plant could scarcely be imagined. My patch of about fifty plants has been in bloom six weeks now, and is still very showy. A heavy top-dressing of coarse sand seems to suit.

At this time of the year, when many of our rockeries are, in the ordinary course of things,



THE THINNER OR STARRY FORM OF WHITE LILY.

beginning to show a lack of their former beauty and interest, one may often hear from visitors just returned from alpine travels a sad and even disgusted reference to the dulness in appearance of their rockery at home. The fact that very many alpine flowers in England much earlier than in their native habitats has, no doubt, something to do with this, but then we have at our disposal a flora much larger than that of any of the alpine districts, consisting as it does of almost all the more worthy representatives of each of these places.

The following alpine plants in bloom here now are perhaps worthy of note on account of their late show. In a warm and damp position *Calceolaria amplexicaulis* is doing splendidly with its heads of large clear pale yellow, relieved by the delicate green foliage. It looks like flowering up to the frosts, and in a favourable position is reputed to be hardy. *Androsace lanuginosa* is still in bloom, but its more compact variety, *A. oculata*, seems more floriferous with its heads of crimson-eyed flowers. *Dianthus Freynii* is flowering for a second time in rather a peculiar manner, the stem being longer than usual, surmounted by a head of three or four flowers surrounded by a small cluster of foliage. *Silene quadrifida* mixed with *Tunica Saxifraga* makes a most dainty and effective combination, both being wonderful plants for quantity of bloom and long succession.

A small plant of *Antirrhinum asarina* (the creeping yellow Alpine Snapdragon) if planted in spring will cover 2 square feet by autumn, and flower well from May until the frosts. It is a perennial, but liable to damp off in winter, so seeds or self-sown seedlings should be saved. A dry wall is the place it loves best. *Silene Schafta* must be regarded almost as a necessity among late alpine plants. It will grow almost anywhere, and produces its masses of bloom as freely as the May-flowering *Saponaria ocyroides*, to which it bears some resemblance.

Kirkcaldy.

J. WOOD.

THE BEST FORM OF WHITE LILY.

MAY I draw the attention of your readers, now that the bulb-ordering time has come round again, to the importance of getting the best form of the beautiful white Lily (*Lilium candidum*). One is quite a starchy, poor-looking variety, with florets that, so to say, taper to a point and stick out, but the other has broad florets, stout, and with a look of strength. This is the one I grow, and let me remind growers of this, and, indeed, all Lilies, that protection from spring frosts is essential to success. The disease in most cases is due to the want of a little help when the leaves are tender.

VIATOR.

TREES AND SHRUBS.

SPIRÆA LINDLEYANA.

IN a note on this handsome *Spiræa* on page 95 a correspondent writes that "it is a great mistake to put single plants of it in a shrubbery," and suggests that it should be grouped on a bank by the side of water. It is certainly a mistake to plant any flowering shrubs in the crowded collection of heterogeneous subjects too often dignified by the name of "shrubbery," and it is equally certain that no objection can be raised to planting this *Spiræa* and other ornamental shrubs valuable for the beauty of their blossoms in groups, but it is as a single isolated specimen that a fine example of *Spiræa lindleyana* appears to the best advantage. A bush 15 feet in height and 18 feet through, such as I have measured before now, with its deeply-cut foliage sweeping the ground and crowned with numbers of spreading, ivory-white



THE BEST FORM OF WHITE LILY.

bloom panicles 18 inches to 2 feet in length, presents a picture equalled by few of the best of our flowering shrubs, the blossoming period of the majority of which is long past when this native of the Himalayas attains the zenith of its beauty. Large specimens which have reached maturity, such as that I have alluded to, require a certain amount of thinning out and a shortening in of the longest shoots in order to keep them in vigorous health.

S. W. F.

SAMBUCUS CANADENSIS.

THIS appears to be the correct name of the Elder, which is occasionally met with in nurseries as *Sambucus pubens maxima*. Its merits as a late summer or early autumn flowering shrub have until now been very generally overlooked. It forms a bold-growing shrub, not so strictly woody as the common European Elder (*Sambucus nigra*), but at the same time it reaches a height of 6 feet to 9 feet, or even more. The leaflets are often more numerous than the ordinary forms, but by far the most notable feature, apart from the season of blooming, is the size of the flattened clusters of whitish flowers, as in vigorous examples they may be met with as much as 18 inches across, and a specimen laden with them forms, as may well be imagined, a notable August feature. A certain amount of pruning is necessary in order to see this Elder at its best, for if the weak and exhausted shoots are cut out the vigorous ones have more space for their development. If this be really the *Sambucus canadensis* referred to by London as having been introduced in 1761 (and on this point there seems some doubt), it is surprising that its merits as an August-flowering shrub have not been more generally recognised.

H. P.

SOME LESSER-KNOWN JAPAN TREES AND SHRUBS.

(Continued from page 168.)

THE Horse Chestnut has been confused with *Æsculus chinensis*, but the true *Æ. chinensis* is probably not to be found in cultivation in European countries. I have a vivid recollection of several isolated specimens on Mount Hakkoda; stately trees with stems 3 feet to 4 feet in diameter, and 80 feet to 90 feet high; usually at an elevation

of 1,500 feet to 3,000 feet. In this country the tree is quite hardy, and makes a graceful symmetrical specimen.

Japan, like America, has sent us the handsomest Dogwoods or Cornels, and there is reason to believe there is still something in this way to be obtained from China, where it is more than probable all those species first found in Japan are endemic.

Cornus macrophylla, said to be synonymous with *C. brachypoda*, is a handsome, graceful tree, and flowers well in England, though its cultivation in America has hitherto not met with success. Professor Sargent holds it to be one of the most beautiful of all Cornels, an opinion which can be endorsed from experience of the tree in this country. The pointed leaves are dark green on the upper surface, almost white beneath, borne thickly on branches at right angles to the main stem, forming flat tiers of foliage. It flowers with great freedom—as with many deciduous flowering Eastern trees in this country—every other year, unable apparently to annually sustain such an exhausting effort. Under the name of *C. brachypoda*, my firm has a handsome Dogwood, some 15 feet high, clearly distinct from the above in several ways, but botanical authorities have difficulty in, as yet, determining its exact position in the family. Of this undetermined species a variegated form is unusually attractive. Of the behaviour of *C. Kousa* under cultivation too much cannot be said. Though possibly its blossoms are individually not so large nor so handsome as those of the American *C. florida*, it succeeds on the whole better. It flowers freely, and has proved a striking and valuable addition to the deciduous trees worthy of a place in our gardens.

Clethra barbinervis (*C. canescens*), a beautiful small tree found all through the Far East from Java to Corea, grows well, and produces freely in the early autumn its white-panicked racemes, often a foot in length.

The nearly allied *Enkianthus campanulatus*, much esteemed in Japan for its quaint beauty, flowers freely when left undisturbed in a sheltered corner.

Most of the *Viburnums* are well known, but the handsome *V. dilatatum* should not be overlooked, and *V. tomentosum* Mariessii, allied to *V. plicatum*, from which it differs in its more graceful habit, its more hairy leaves, and in its

sterile flowers being confined to the outer part of the inflorescence, is an unusually handsome shrub.

Styrax japonicum and *S. Obassia* are becoming known, and are amongst the most ornamental of any trees found in British gardens. Though in the first-named the large dark green foliage of *S. Obassia* is missing, ample compensation is afforded by the extraordinary profusion with which the myriads of white bell-shaped flowers are produced. In Japan *S. Obassia* is certainly seen to greater advantage than in this country, its leaves often attaining a size of 10 inches in diameter and blooming with greater freedom than in our gardens. On the other hand, *S. japonicum* is as much at home and as beautiful here as in China or Japan. In Surrey it seeds freely, the seed germinating in one or two years, though a large proportion lies three years before showing signs of life.

The rich forest flora of Japan contains several Birches and Hornbeams, some of interest, notably *Betula Maximowiczii* and *Carpinus cordata*, both finer representatives of their genera than are usually cultivated.

Betula Maximowiczii is at its best in Yezo, where it forms handsome trees 80 feet to 90 feet in height, noticeable for their smooth orange-coloured bark and large leaves, larger than those of any other species. I have had a tree under observation for several years in this country, and am inclined to think, if it does not actually attain the noble proportions characteristic of this fine Birch in its native home, it will prove better than anything we yet possess. *B. Ermani* and our own *B. alba* are amongst the best known of several other Birches found in Japan. What *B. Maximowiczii* is to the Birches, *Carpinus cordata* is to the Hornbeams, beyond question the most beautiful and boldest of the family. In its native forests and in this country its leaves are 6 inches to 7 inches in length and 3 inches to 4 inches broad, the catkins 5 inches to 6 inches long, and very beautiful in their autumn colouring. Though in England I know of no tree of a greater height at present than 14 feet, in Japan a height of 30 feet to 40 feet is not uncommon. *Carpinus laxiflora* and *C. Carpinus* are graceful trees, but will not compare from an ornamental standpoint with *C. cordata*.

The Japanese forests are rich in Oaks, which in this country have not received the attention they deserve. That they will flourish, whether evergreen or deciduous, could be seen from photographs of two species in the Hall of trees 20 feet and 25 feet high.

Quercus dentata, remarkable for its giant leaves on young, vigorous growth 10 inches to 12 inches in length and 6 inches to 8 inches in width, has not been so successfully cultivated as one would wish, though the Dutch have obtained fair results. In the neighbourhood of Sapporo fine specimens 70 feet to 80 feet high are not uncommon, but unless our planters have greater good fortune than has hitherto attended their efforts we shall never see in this country in any thing like beauty one of the noblest of the Far Eastern forest trees. *Q. serrata* is a good tree — interesting

from the fact that the Japanese feed silkworms on its foliage. The leaves bear a strong resemblance to those of the Sweet Chestnut, and in England are semi-deciduous. Widely distributed in Japan, it grows here with vigour. It is, however, amongst the Evergreen Oaks we may look for the greatest additions to our gardens. Highly prized by the Japanese, they are largely planted in gardens and round temples, and in large centres are amongst the commonest trees.

Q. cuspidata and *Q. glauca* are both under cultivation, a variegated form of the first-named having met with some attention. *Q. acuta* is, however, the species which seems most at home in this climate, and forms a stately column of lustrous dark green 20 feet in height. It is a noble tree, for which we are indebted to Maries. The Japanese call it the Red Oak, from the redness of its wood, which deepens often to a reddish brown.

JAMES H. VEITCH, F.L.S.

(To be continued.)

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THE FLOWER GARDEN.

GERANIUM GRANDIFLORUM AND OTHERS.

A GOOD specimen of *Geranium grandiflorum* (Edgeworth), a Himalayan plant of great merit as a garden ornament, is represented in the illustration. There has been some uncertainty about the synonyms of this species, first described by Edgeworth in the transactions of the Linnean Society, Vol. XX. Sir J. Hooker, in his "Flora of British India," Vol. I., page 430, makes it synonymous with *G. palustre*, a widely-spread kind found both in the Himalayas and in Southern Europe. It will probably, however, when better known prove to be a distinct species. The flowers are much larger, and more blue than those of *G. palustre*, and the growth is dwarfer and of better habit than *G. pratense*, of which species some have thought it to be a local variety. It was introduced into cultivation a few years ago by Herr Max Leichtlin, and has multiplied so fast by its running

habit and by seeds, which it ripens plentifully, that it may now be seen in most gardens. Those who have the opportunity should raise it from seed for the sake of selection. The best I have seen were in the garden at Warley, where it is the most attractive ornament of its kind. It grows on level borders in any rich, well-drained soil, but gardeners must find out by experience the best position for it in their own gardens. Rules given for one garden do not always suit another.

From the same mountain home and not far behind in merit comes *G. wallichianum* (Dun), of which there is an uncomplimentary portrait in the *Botanical Magazine*, tab. 2377. This species wants selection even more than the last. Seed, plentifully ripened in September, should be picked from plants with the best-coloured flowers and the most compact growth. It is not easily increased by division or by cuttings, and is not a long-lived plant. Selection will be more easily made if the seedlings are grown singly in small pots till they flower. In hot soils and full sun, such as prevail in the herbaceous garden at Kew, *G. wallichianum* is never seen at its best, the flowers being generally of a dull red purple, and the foliage having a burnt appearance, but in stronger soil and in moderate shade the flowers ought to be rich blue, prettily veined, and becoming bluer as the night becomes cooler and moister; but perfect drainage is necessary, as the plant is liable to collapse suddenly if its roots reach stagnant moisture in the soil. Mr. E. C. Buxton of Bettws-y-Coed has a strain with the bluest flowers and the most compact growth I have seen. Some forms, especially in too much shade, trail over 6 feet or 8 feet in diameter, and become long-jointed, with long intervals between the flowers. The best are not more than 2 feet across when full grown.

A most useful and well-known Cranesbill is *G. ibericum*, named from Iberia, the Caucasian province, not Iberia of Horace and the ancient classics, which was Spain, so called from the River Ebro. This *Geranium*, too, requires discrimination and selection. There are poor forms with narrow petals giving a shabby appearance to the flower; others, more commonly seen in gardens, have petals imbricated near the base, and forming a more circular flower. These are called var. *platypetalum*, a name recognised by E. Boissier as describing a wild form. Another variety, more distinct in

habit, and made into a species by de Candolle, is *G. var. gymnocaulon* — i.e., bare-stalked. It has a closer habit, and the leaves are more flat with rounder lobes; but var. *platypetalum* is the best form, and as each tuft, if detached, easily and quickly grows into a plant, we may ornament our rough banks and shrubberies with as many as we like.

G. armenum (E. Boissier) has very large flowers of rich magenta, produced plentifully in summer, and the largest leaves of any Cranesbill. It thrives anywhere in either sun or shade, but rather poor soil in full sun checks too great luxuriance. It may be cut up for increase at any season, and seeds shot to a distance grow readily, and



GERANIUM GRANDIFLORUM. (From a photograph by Miss Willmott.)

make the supply abundant, besides which I have never known a plant die from old age. So we may easily have too much of it.

G. pratense in gardens seldom shows the bright clear blue flowers which make it so ornamental on the islands in the Kennet, and the sunny banks of other rivers. The white variety is not pure white. There is a double white as well as a double blue; both are fairly good, but require frequent division to keep them healthy and shapely, or they suffer from congestion of the dense shoots.

G. sanguineum is never so good in borders as when seen hanging from crevices of the limestone rocks at Llandudno, where it grows in great profusion. It runs underground too much to be good for a rockery, and in borders the preponderance of foliage over flowers is a fault. The white flowered variety is pretty good. The finest individual of the type I ever saw was in Mr. Buxton's garden at Bettws-y-Coed and labelled *G. nepalense*. This was certainly a wrong name, but the plant was said to have been brought from Nepal, a statement which did not bear investigation, so I presume it is a garden development.

G. sylvaticum is like a small edition of *G. pratense*, with similar leaves, but much smaller flowers, pale purple in the type, sometimes blue, and rarely white. It is native in Yorkshire, and is satisfied in any shady corner and poor soil. A double form received under the name was certainly *G. pratense*.

G. phæum, the dusky Cranesbill, with nearly black flowers, may be grown in the shade with *G. sylvaticum*, but requires to have the many seedlings weeded.

G. macrorrhizon (syn. *G. balkanum*) has dark red-purple flowers in bunches on long stalks, with tufts of rather ornamental lobed leaves, but with a rank smell; neither of these has much merit.

G. malviflorum (syn. *G. atlanticum*), from the mountains of Spain and Morocco, is an early-flowering, rather uncommon kind, with blue flowers and deeply-incised leaves. It does best in a south aspect and full sun, and is distinct.

Few gardens are without *G. Endressii* (Gay), from the Western Pyrenees. Its long flowering time and clear pink flowers should ensure it a welcome everywhere. It does best on a rockery, but must be restrained from running too much where small alpine grow near it. *G. striatum* seems to me to form hybrids intermediate in characters with this kind. *G. striatum*, with rather small flowers and a black spot on each leaf, though not showy, is grown for the very pretty veining of the flowers. It does in any semi-wild corner, and sows itself round the parents.

The above are some of the larger kinds of Cranesbill which may be grown in borders, and all are grown in the Edge Hall garden. There are a good many others which may be seen, correctly named, flowering in June and July, on the rockery at Kew. I have tried some of them, but have not found them of sufficient merit to record here.

Edge Hall, Malpas.

C. WOLLEY DOD.

CERASTIUM TOMENTOSUM.

It is almost needless to write about so free-growing and well-known a plant as this *Cerastium*. It is shown growing in a warm garden in the home counties, and when in bloom is a sheet of purest white. Little tufts put in during autumn or early spring quickly spread, almost too much so in some places, and severe restriction is needful. Now

that there is a growing interest in wall gardening it is well to first think of a few things that will quickly grow and flower, and this *Cerastium* is certainly one of the number. *Aubrietias* are also very free growing, and make sheets of blue in the early spring, when the *Alyssum saxatile* is also in beauty to keep it company. At this season the wall garden should be overhauled, as things have grown tremendously during the rainy season, so much so that I have been compelled to cut out masses of *Cerastium* and *Alyssum*. V.

BORDER CARNATIONS.

THE letter in your issue of the 29th ult. from Mr. Woodall on the subject of border Carnations

have had the same experience as Mr. Woodall with *Belladonna*. From a number of plants I have scarcely had a flower worth cutting, nearly all having burst, though the colour was good. The great difficulty is to get robust, free-flowering plants with flowers which do not burst. I have after years of selection, mostly from seedlings, succeeded in making a collection of plants which are satisfactory in the border on a fairly heavy soil, but I have only done this by discarding large numbers which do not come up to my standard, and each year selecting, hybridising, and raising seedlings, always endeavouring to work each colour up to the highest standard. I am not contented with a beautiful flower alone, but try to combine with the well-formed bloom a plant of good habit which will stand all weathers in the open border summer and winter. W. A. WATTS.

Bronwyffa, Et. Asaph.

EDIBLE FUNGI.

UNDER what circumstances fungi were first eaten by human beings will never be known. Probably some daughter of Eve, inheriting from her mother the desire to taste new things, and prompted by feminine curiosity, was tempted to make the experiment; or perhaps one of the male sex, goaded by hunger, had the temerity to investigate the edible qualities of these curious vegetable products. The boldness of the individual was only equalled by that of the person who first tasted an oyster; but it cannot compare with the rashness of those who in the present degenerate days, when bacteria and ptomaines are rampant, consume these favourite molluscs. Though the origin of the use of fungi as an article of food is lost in obscurity, it is very certain that they have been so used for a great number of years. The ancient Romans are supposed to have eaten them, though it is uncertain how many different kinds they made use of. At the present time they are much more employed on the Continent for culinary purposes than they are in this country, and many more kinds are partaken of. Here in England few persons ever think of tasting any other kind of fungus than the ordinary Mushroom (*Agaricus campestris*), although many other kinds are quite as palatable, and some are considered by many to have a decidedly more delicious flavour, but the general public and the man in the street class

them all as toadstools, and quite unfit for human consumption. The edible fungi are really very numerous. Among the *Agarics* there are probably some sixty species which are quite wholesome. It should always be remembered that the part of the fungus which is eaten is not the whole plant, but merely that which bears the spores, the plant itself is what is commonly known as the "spawn," and I have never heard of it being eaten. However, in this article the term "fungus" is meant to allude to the spore-bearing portion. The fungi which may be eaten with impunity and are useful as articles of food may be roughly divided into seven divisions. The first comprises



A MARGIN OF CERASTIUM TOMENTOSUM.

touches on a very important point in the culture of these useful plants. The only colour that has suffered to any extent with me this year is the rose, all the other colours having stood well. The white George Maquay seems to stand anything; the pale blush Countess of Paris is almost as good. Agnes Sorrel, deep maroon, stands wind and rain well. I have never had any great success with the orange or buff colours, but I am hoping to raise a strong plant with orange-coloured flowers. Ceres, a yellow of mine, stands wet weather well and does not burst. I have also two fancies—Otter, yellow ground, marked with red, after the style of Primrose League, and Pied Piper, yellow ground, marked with crimson—which are both perfect border varieties and very free. I



THE BRILLIANT FLY AGARIC (AGARICUS MUSCARIUS). DEADLY POISONOUS.

THE AGARICS,

which consist of a stem carrying a round, more or less flattened, cap, the underside of which is composed of a number of thin plates, radiating from the stem to the edge of the cap. On either side of these plates, which are known as "gills," the spores are produced. In this division are the Mushrooms and their near allies. The common Mushroom (*Agaricus campestris*) is consumed in far larger quantities than any other species, and is cultivated at the present time to an extent which would surprise our grand-parents, and now forms a very considerable industry, not only in this country, but also on the Continent. Near Paris they are very largely grown in caves. In one there are, it is said, some twenty-one miles run of beds. Another very common Mushroom frequently found in our fields, *A. arvensis*, and usually known by the name of the "horse Mushroom," is a much larger species, and has been found of the weight of 3lb., and measuring 4 feet in circumference. Small specimens very much resemble the other species; it is very largely used for making ketchup, and is often sold as the real Mushroom; it has, however, a stronger flavour. The true Mushroom has a collar or ring round the stem; it is never found in woods, and if laid for some hours on a white plate or sheet of paper the spores which it will deposit, if ripe, are of a purple colour. If there be any doubt as to the genuineness of any that may be obtained, they may be known by these characters. Another common species often found growing on old stumps is *A. melleus*. This is highly esteemed abroad, but in this country it is not considered palatable. *A. procureus*, sometimes known as the parasol fungus or Mushroom, is a very elegant species; it has a long slender stem some 8 inches or 9 inches in length, and occasionally even longer, surmounted by a greyish brown somewhat conical cap, which is rough and scaly. It is much esteemed on the Continent, but it is not often eaten in England. A very early species is the St. George's Mushroom (*Agaricus gambosus*); it may often be found in May or June growing in rings. In Italy and France it

is very highly valued, and will fetch as much as 10s. to 15s. per lb. when dried. The common Fairy Ring Champignon (*Marasmius oreades*) is one of the most delicious species; it is very small compared with those already named, but is very common. A bright golden yellow species, the Chantarelle (*Cantharellus cibarius*), is but seldom eaten in England, though on the Continent it is a universal favourite. There are many other species which are most wholesome and delicious, but it is impossible to enumerate them all in the present paper. The second division of edible fungi are

THE BOLETI.

They very much resemble the Agarics in form, and are nearly allied to them, but they differ in not having any gills on the underside of the cap, but instead there are an enormous number of very fine tubes placed close together so that the surface appears to be covered with fine pores. The spores are formed inside these tubes. The number of edible Boleti is small compared with the Agarics, but there are some fifteen or twenty species which are wholesome and palatable. *B. edulis* is a very common species, and is more eaten than any of the other species. *B. aestivalis* is considered by some to be one of the best species. The next division is

THE POLYPOREI,

which, as a rule, are very different looking to those which we have already considered, as they usually have no stems, or only very short ones, and the stems are generally at one side and not central, as in the Agarics and Boleti. The underside of the cap is covered with fine tubes like the Boleti. They grow on trees or timber, forming the large bracket-like growths often seen on the stems of trees, and instead of decaying in the course of a few days, as most fungi do, they remain for weeks, some species becoming very hard, woody, and very indigestible. Only a few species are considered edible, and they are not much sought after. Only quite young specimens should be used. One species known as the Beefsteak fungus (*Fistulina hepatica*), so called from its slight resemblance to a beefsteak in appearance, is more juicy and fleshy than the others, and is

much esteemed by mycophagists. It sometimes grows to a great size, one having been found by Dr. Badham, the author of a well-known work on edible fungi, weighing 8lb., and measuring 5 feet in circumference. It is said that "in Vienna it is sliced and eaten with salad like Beetroot, which it then much resembles."

THE CLAVARIEI (CLUB-SHAPED FUNGI),

which constitute another division, are very unlike any of the preceding. They are generally found in kind of tufts of more or less slender stems, sometimes branched at the top like the antlers of a stag. There are about half a dozen species that are edible. Nearly all the white-spored species may be eaten. Another division contains

THE "PUFF BALLS,"

or Lycoperdaceæ, which are too well known to require any description. The large species, *Lycoperdon giganteum*, is the one most generally eaten. It sometimes grows as large as a football, and has been known to attain a weight of 14lb., and the circumference of 4 feet 9 inches. This species, as well as the smaller ones, must be eaten when young, for old specimens

are nothing more than a mass of an almost felt-like substance filled with innumerable spores, but when young cut into slices and nicely fried they make a most palatable dish for breakfast, and one specimen will furnish a repast for several persons. Though by no means an uncommon species, it is never found in large numbers together. The smaller species, which are common on open downs, &c., are sometimes very plentiful. Another very distinct group of fungi are

THE "MORELS,"

which to some extent resemble the Agarics in outward appearance, but they are really very different. They consist of a short stem, surmounted by a conical or ball-like cap, which is very much wrinkled longitudinally. The spores are formed on the outside of the cap. The best known species is *Morchella esculenta*, which is considered quite a delicacy, but, unfortunately, it is by no means common here. There are two other species found in this country, but they are more rare. A very nearly allied genus, *Helvella*, contains several species which are edible. Only two, however, are found in this country—*H. crispa* and *H. lacunosa*.

THE TRUFFLES.

The last group which we have to mention contains the well-known Truffles or Tuberacei. These fungi are entirely subterranean. The English species which is in most request is *Tuber aestivum*, but in France they have other species, *T. melanospermum* and *T. magnatum*, which have a better flavour and are found in greater abundance, so that the industry of Truffle hunting in this country has declined and is now practically non-existent. The Truffle fungi are most plentiful in soils of a calcareous nature, and they grow under the shade of trees, but not where it is too dense. The two favourite trees are the Oak and Hornbeam, but they are also found under Chestnuts, Hazel, Birch, Box, and Beech, and in places where they grow something may be done to cause them to increase by judiciously thinning the trees, so that the ground should not be too shaded, but all attempts to really cultivate

Truffles have hitherto failed after a few years of indifferent success. These fungi consist of a considerable amount of spawn composed of a number of fine white threads, on which grow the Truffles, which are the spore-bearing part of the fungus. Many very interesting accounts have been written from time to time describing the cleverness of the dogs which are used for discovering the whereabouts of these subterranean fungi and the means used for training them, but however interesting it may be it is a subject which cannot now be entered into. Though it is unquestionable that very many different kinds of fungi are very desirable articles of food, as I have endeavoured to show, it must always be remembered that there are also many that are quite the reverse and are decidedly poisonous. Even the real Mushroom, like many other articles of food, if eaten when in a state of decay is decidedly unwholesome. Unfortunately, there are no rules which can be laid down by which edible fungi can be distinguished from those which are not, and the only way to ensure safety in this respect is to learn the characters of the edible ones that are most likely to be met with and some of the poisonous ones, so that they may be at once recognised. No fungus, however, should be eaten which when cut soon turns a blue colour or that has an acrid taste. Fungi should always be cooked, and are best stewed, broiled, fried, or baked, seasoned with pepper, salt, and vinegar. Fungi have no doubt a certain value as an article of food, but the value is not great. They contain a large amount of water, varying from 9 per cent. to 90 per cent., the woody Polyporei being those which contain least. A fair average for Agarics would be from 60 per cent. to 70 per cent. About 20 per cent. of the solid matter is composed of cellulose, which cannot be digested by the human stomach, though it can be by those of some of the lower animals. Of the remainder about 6 per cent. or 7 per cent. are albuminoides, which are valuable as food, as they contain a higher percentage of nitrogen, which is the nutritive element, than Peas or Beans, whose food value is well known.

It is to be hoped that the exhibition of fungi at the Drill Hall on the 15th inst. will create

much interest in the subject of edible fungi, and that many persons who have not hitherto eaten any but the common Mushroom will overcome any prejudice they may have against eating Toadstools, and come forward boldly and join the ranks of the true mycophagists.

G. S. SAUNDERS.

GARDENING OF THE WEEK.

CHRYSANTHEMUMS.

EARLY-FLOWERING border varieties are especially fine this year, the past wet weather having favoured their growth, and few late-flowering plants can surpass them for giving a wealth of bloom at this season, either for cut flowers or for brightening the beds and borders when many other kinds of plants are on the wane. Here we have a border about 70 yards long and 2 yards broad, planted with four varieties: Back row, Mrs. Cullingford (white); third row, Flora (bright golden yellow); second row, White St. Crouts; and the front line, Piercy's Seedling (orange), which at the present time is just developing finely, and will in a short time be in full beauty. The growth of these varieties is compact, and they are very free-flowering, and, being only of moderate height, they are not exposed to much damage from heavy winds. The last-named, Piercy's Seedling, though an old variety, is still one of the best for bedding. See that the growths are neatly supported, and give a slight dressing of artificial manure should the weather continue showery. Keep the roots well supplied with liquid manure should a spell of drought set in, when these will go on flowering for some long time to come.

TRAINED SPECIMEN PLANTS.

These are somewhat late this year, but otherwise looking well. If required for early shows in November no time should be lost in getting them under glass, as by so doing it will make ten days or a fortnight's difference to them. A light airy house is the best possible place, but, failing this, any old light, temporarily erected building may be made to answer the purpose. Place it in full sun, but in all cases elevate the plants as close to the glass as possible. The growths should be securely supported, and thoroughly dust the undersides of the foliage with sulphur and fumigate them two or

three nights in succession. The plants will require liberal feeding with manure water to ensure fully developed flowers and good healthy foliage. Do not bud immediately it is safe to do so. The final tying should not be done till the bud begins to unfold.

POMPONS.

This charming section is, perhaps, unsurpassed for home use when a suitable selection is made of the plants nicely grown. These always look the best in bush form from medium-sized plants, arranged neatly and naturally looped to one stout stake placed in the centre of the plant, and the same single varieties should be treated precisely in the same way. The disbudding of these should be done judiciously. Just sufficient should be taken off to allow each bloom to properly expand, but when overcrowded they are poor and are not nearly so effective. These will also require plenty of feeding; the growths should be kept free from insect pests, rust, and mildew by taking the necessary precautions.

PREPARATION AGAINST FROST.

It is quite possible in low-lying districts, as indeed in many parts of the country, that we may experience frost any time after this date sufficient severe to injure the young tender buds of the Chrysanthemum, especially on those plants that have been highly fed and well grown. Though Chrysanthemums, when allowed to grow natural in the borders, are practically hardy, I have known 3° or 4° do a considerable amount of damage to the buds when quite small on plants which have been cultivated for specimen blooms. Though this may not be apparent at the time, defective flowers will be the result, and the younger the buds the more susceptible are they to injury. Thin tissue should always be placed over the plants at night when the glass goes below 40°.

E. BECKETT.

Aldenham House Gardens, Elstree, Herts.

FLOWER GARDEN.

HEPATICAS.

Those who wish to increase their stock of the lovely flowers will find the present time the best for this operation. So persistently do they shrivel from the hand of the careless cultivator that when we meet with them in great flowering clumps we know they have long been left to grow in their own sweet way. It is easy enough to fail in the cultivation of Hepaticas. Plant them in borders that are regularly dug and scratched, and altered and muddled by that class of gardeners who inborn faith it is that a tree exists only to be cut down and the prettiest weed to be pulled up; trust to the order of genius and you will never see any Hepaticas a second time. The secret of success may be said to consist in first finding a proper place for them; and, secondly, in leaving them alone. They thrive best in peaty soil, but in this respect they are not particular. Almost any soil will suit these lovely plants. Partial shade is better for them than full sun, and a cold climate better than a warm one. They are very easily increased by division, and the sooner this is done the better. When divided and planted a little fresh soil, principally leaf-mould, or peat and sand, should be put to the roots of each patch; this will help them to start away freely. Should the weather be dry at the time of planting they should be watered, and the soil pressed firmly to each plant. Very small pieces are better potted in very small pots using light gritty soil. Plunge them in cool ashes in a partially shaded situation, and plant them when they have filled the pots with roots.

BULBS.

Various kinds of bulbs should now be planted as fast as they come to hand. The Daffodils or Narcissus



THE COMMON MUSHROOM (AGARICUS CAMPESTRIS).

should first be attended to; in mixed borders they do remarkably well if allowed to remain undisturbed for several years. When used for beds it is difficult to move them in time for the summer flowers without their suffering from removal before they are fully ripe. It is, however, for mixed borders they are principally recommended. Among others which should have early attention are Snowdrops, always best when planted early. Crocuses also will give far better results if planted in good time. The Musk and Feather Hyacinths should now be planted in a sunny spot where the bulbs may get well ripened. Erythroniums (Dog's-tooth Violets) do well in a partially shaded place. If the soil is really damp so much the better. Leucojums may be planted almost anywhere, and if planted deeply the beds or plots may be dug over and replanted for summer or autumn effect. Chionodoxas and Scillas should be planted in quantity wherever room can be found for them; they will help materially to brighten up the garden in early spring.

PENTSTEMONS.

These are doing well this season. Cuttings of the best types should now be put in, choosing only those varieties which show healthy growth. They strike well in a cold frame placed on a hard ash bottom with about 4 inches of soil. Only a few cuttings should be taken at a time, as they should not be allowed to flag badly, and they should be well watered and kept close and shaded for a few days until they begin to revive. T. B. FIELD.
Ashwellthorpe Hall Gardens, Norwich.

KITCHEN GARDEN.

TOMATOES.

In this neighbourhood the only Tomatoes that have given anything like good results in the open are those planted against walls having a warm aspect. The plants in open quarters have grown freely, but the amount of fruit that will finish properly is not nearly commensurate with the labour bestowed upon them. Two pounds per plant is about the average weight of fruit, and it is doubtful if these will finish sufficiently well to pay for the trouble incurred. As a matter of fact, there is but little to choose between this season and last. The varieties that do best with us in the open are Up-to-Date, Sutton's A1, and Ham Green. These plants, growing on south walls, are carrying fairly heavy crops of good-sized fruits, and all they now need is bright sunny weather. Gather the fruits when they become yellow and lay them on a bed of wood-wool in a vinery or other structure where a little fire-heat is maintained. Small fruits that cannot be expected to ripen should be removed. All side growths and some part of the strong main leaves may also be cut away to admit light to the fruits.

Plants for winter fruiting should now be growing freely and nearly ready for shifting into their fruiting pots. Admit abundance of air to the structure on all favourable occasions to ensure sturdy growth, and when the weather becomes cold and frosty a little fire-heat must be applied, but avoid excess until the fruit is set.

PEAS.

This has been a good season for Peas in general, and late varieties in particular. That grand variety Autocrat is yielding many dishes of rich full-flavoured Peas, and they have the appearance of continuing to bear for some time to come. The points of the shoots should now be pinched out, and if the haulm has a tendency to fall away from the supports a string must be passed down the whole length of the row on both sides.

BEANS.

Although late in coming into use, the Runner Beans have done well, both quality and quantity being all we could wish for. Keep the pods gathered closely, for it should be borne in mind that by allowing any to become old and seedy the season of bearing will be shortened. A sowing of Ne Plus Ultra or Osborn's Forcing may now be made for winter fruiting, provided proper convenience is at command. Pots 7 inches in diameter should be three parts filled with light,

rich soil and eight Beans placed at equal distances apart on the surface, and cover with half an inch of soil. A stage or shelf near the glass in a warm house should be accorded them, and when the seedlings are up give frequent copious syringings and grow on freely until flowering commences, when a dryer atmosphere should be maintained for a few days. A temperature of 60° to 65° will be necessary.

Stonleigh Abbey Gardens.

H. T. MARTIN.

INDOOR GARDEN.

BEGONIA GLOIRE DE LORRAINE AND VARIETIES.

ANY late-rooted plants of this Begonia should now receive all encouragement possible, as growth made after the month of September is too late to produce a satisfactory crop of flowers. Pinch off the flower-buds once more from those plants intended to bloom in October and November. Allow them plenty of room; overcrowding always results in inferior quality. Keep the shoots tied up, using for supports for this purpose light, green-painted stakes, but avoid using more stakes to a plant than are necessary; any plant overstaked has a stiff and objectionable appearance. These plants should be allowed a night temperature of 55° to 60°, with an increase of 10° or more during the day.

BEGONIA GLOIRE DE SCAUX.

Pot on the young stock of plants before the pots are full of roots. Any growth made during the next five or six weeks is more satisfactory than growth made during the short dull days of December. This plant requires more heat and moisture than the preceding.

POINSETTIAS

should now be allotted a light position, with a night temperature of 60° in a well-ventilated house. Keep the plants well watered at the roots, but avoid anything approaching a damp stagnant atmosphere, and, until the floral bracts are beginning to develop, water with clear water only.

GARDENIAS.

The season's growth should be well ripened by this time, therefore, give the plants more air, light, and room, at the same time reduce the atmospheric moisture, and if the plants have been plunged up to this time it is now advisable to lift them out of the plunging material. Any roots found there must be checked, as the object now is to induce a short period of rest, during which the flower-buds form and gradually develop in preparation for the next crop of flowers.

SOLANUM CAPSICASTRUM

should now be allowed all the light and air that can be conveniently and safely given them, and for this purpose raise the plants on pots that will bring them within 6 inches or 8 inches of the glass of the frame in which they are growing. Should aphids show themselves dislodge them with a sharp syringing with Quassia Extract or dust them with Tobacco powder, which should afterwards be syringed off with clear water. It will now be necessary to prepare for housing Camellias, Azaleas, Ericas, Epacris, and any other greenhouse plants that may have been placed out of doors during the summer months. In all cases see that the drainage is not in any way obstructed, and in the case of Camellias, should bright periods of sun intervene, shade the plants with tiffany. Large plants of Ericas that require restaking and tying should be attended to when they are housed or the plants may get broken. These remarks apply also to Genetyllis, Dracophyllums, or any other plants requiring the support of stakes; if carefully tied as soon as they are placed under glass they present a neat appearance through the winter.

THYRSACANTHUS RUTILANS.

Plants from cuttings rooted in March or April should now receive their last shift for the season; 5-inch pots are usually large enough for April-struck plants, and 6-inch for the stronger of those rooted in March. Avoid placing them in too large pots, for to bloom them successfully the pots should be full of roots by the end of October. Give the plants a good light position in either a hot pit

or on the side stage of the stove. This plant is rather subject to brown scale, but with regular attention it is not difficult to keep clean; it should be grown on rapidly, and it will amply repay for all attention bestowed upon it by its graceful, pendulous, long racemes of flowers.

Wendover.

J. JAQUES.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

VERONICA HULKEANA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—As (I believe) the first to raise and flower *Veronica hulkeana* in this country, such a charming illustration of my old favourite as that on page 115 gave me great pleasure, for it is, I think, as stated by Mr. Fitzherbert, the most beautiful of its section. It is certainly not half enough grown, for even in parts of the country where its hardiness is more than doubtful, it is a charming greenhouse shrub. Mr. Douglas, then of Loxford Hall, received a first-class certificate for it in the spring of 1882, and a few years after that I saw a number of well-flowered examples on a costermonger's barrow in the streets of London, grown in the regulation 5-inch pot. They would appear, however, to have been unremunerative, for I have not met with it since under such conditions, nor even in Covent Garden Market. T.

FRUIT TREE PRUNING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have read with much interest, mixed with considerable surprise, Mr. Thomas's paper on fruit pruning in your issue of the 22nd ult. It goes against all my preconceived ideas. I have always thought (and acted on the supposition) that after the pruning in the spring, subsequent to planting, bush Apples should be left severely alone, except to thin out the centres when getting crowded. Some eight years ago I planted a lot of Apples on Paradise stock, and have never, after the first year, put a knife to them. They have always borne remarkably well, and there have been none of the long barren branches Mr. Thomas speaks of. I have always found that when the shoots of this year are left alone and allowed to extend themselves the following one, they become thickly studded with fruit buds, and so I get both fruit and increased size of tree. However, Mr. Thomas is so great an authority, I determined to act on his advice, and carried out his directions on all my young trees, but I must say in a beautiful spirit of faith. If I find the result is only a production of a mass of wood I shall feel inclined to cross the Channel and proceed to fierce personal violence! But what does he say about those sorts which only bear on the tips of the shoots, such as Irish Peach and Scarlet Crofton? This last variety seems to be little known or planted in England, and yet I think it runs Cox's Orange Pippin very close indeed for the premiership of eating Apples. I should like to have this pruning subject ventilated by some more of the high priests of the profession, such as Mr. Bunyard or Mr. Pearson of Chilwell.

County Cavan.

D. K.

THE HOLLYHOCK.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—As you invite notes from your readers as to their mode of growing this choice garden plant, I may say that in this Yorkshire garden we find the Hollyhock invaluable in August and September. As I look out across the lawn I see four splendid spikes on the plant depicted on page 21 of *THE GARDEN*, January 10, and there are other eight or ten of this noble and picturesque family at present in bloom, some of which have been flowering already for over a month, and are by no means near their end yet. This long period of blooming is one of the greatest attractions of the plant, another is

the great variety of lovely colouring in its flowers, also its stately appearance as a plant for the back of the herbaceous border, and its ability, with a little help, to withstand the windy days that often startle the garden in early autumn. It is to be hoped we shall be saved from any monstrosities in Hollyhocks. Here we have only singles, and each plant is allowed to grow pretty much in its own way, putting up as many stems as it has strength to nourish. Even thus, we get them towering above a 5 foot hedge, which is a good protection to them from the west wind. Here they do quite as well under partial shade of trees as in the open; indeed, our best specimens are on the shady border. I see some writers strongly recommend heavily manured soil for Hollyhocks, and probably in sandy or poor soil they require help, but in good deep loam and a not too dry climate, they do not appear to require it. Biennials they may be, but each year new growth comes from the old stools or offshoots from them, and a can of liquid manure in early summer, and a 5 foot cane to support each of the larger spikes later on, is all the attention given to them. One of Messrs. Kelway's singles, Sulphur Queen, purchased in the spring, is now a most welcome addition.

Beechwood, Mewston.

WALTER JESPER.

HEUCHERA SANGUINEA WALKER'S VARIETY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This variety was extensively shown by Mr. Amos Perry at one of the recent meetings of the Royal Horticultural Society. It is all Mr. Perry claims for it, namely, that it is the most brilliant of all the Heucheras. To myself, as it appeared in Mr. Perry's group some six weeks ago, it was not only the most brilliant of its race, but decidedly the largest of the red flowered sorts. The shade is more akin to vermilion-crimson, and very effective even when set amongst many good things. The variety, which I believe really originated with Mr. Perry, first flowered as a seedling in the garden of the gentleman whose name it bears. This gentleman, a customer of Mr. Perry's, seeing the improvement in size and colour, decided to grow and increase the seedling plant, and presently discard the older variety. Mr. Perry, too, not slow to recognise the merit of the plant, secured all available stock, and is now making a specialty of what is doubtless the finest of all the red flowered Heucheras.

E. JENKINS.

THE USELESSNESS OF MALMAISON CARNATIONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Replying to a previous note of mine, your correspondent C. J. Ellis writes, on page 154, in favour of the Malmaison section of Carnations. The principal defence, however, appears to me to be the fact that employers like them, and of course a gardener should above all things study his employer's wishes, but this does not make the flowers in question any more graceful or pleasing. As well might beauty be claimed for a pug dog on the ground that it is fondled by the highest in the land, simply because it happens to be fashionable to do so.

T.

BLUE WATER LILIES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Mr. Owen Thomas, writing on "Water Lilies" (page 31), says: "Unfortunately, so far we have no blue hardy Water Lilies. Let us hope that before long a hardly stellata or zanzibarensis may be forthcoming." There are certainly blue Water Lilies that grow in portions of Africa that are far cooler than the habitats of the two species above named, and that should, therefore, prove much hardier. In the Knysna district, that lies on the south coast of Cape Colony, between Cape Town and Port Elizabeth, blue Water Lilies are to be seen in the rivers running from the Outeniqua Mountains to the sea. This range is over 100 miles

in length, and its distance from the sea ranges from 20 miles to 5 miles. Even the highest peaks are by no means lofty, and from my recollection of them I should doubt if any exceeded 5,000 feet in

height, yet many have a coating of snow in the winter. In February, which is summer at the Cape, when camping-out by a river-side in a deep kloof, the mercury was only 10° above freezing at

2 a.m. on one occasion.

The region, which is splendidly timbered and is well watered by swift-running streams and rivers every few miles, abounds in flowers, Gladioli, Watsonias, Freesias, and all sorts of bulbous plants being met with in quantity, and the Scarborough Lily (*Vallota purpurea*) growing in hundreds by the side of a river that has cut itself a channel some 800 feet deep in the plateau through which it flows, these being often covered by 10 feet or 15 feet of roaring water after heavy rains. I have often thought that a collector might reap a rich harvest in the Knysna district and its continuation the Zitzikama Forest, that extends towards Humansdorp, and I am at least assured that the blue Water Lilies that live there would possess a far harder constitution than *N. stellata* or *N. zanzibarensis*.

S. W. FITZHERBERT.

KITCHEN GARDEN.

RUNNER BEAN HACKWOOD SUCCESS.

I WAS glad to notice that this splendid new Bean, raised by Mr. J. Bowerman of Hackwood Park, received an award of merit at the Royal Horticultural Society's meeting held at the Drill Hall on August 18. Mr. Bowerman kindly sent me a few seeds to try last spring, which I grew side by side with what I considered to be the best varieties in cultivation, and it proved itself to be far and away the best in every respect, being the earliest, most prolific, and giving the finest pods, and either for home use or exhibition this will undoubtedly prove to be a great acquisition. During the past few years there has been a very great improvement in the varieties of Runner Beans, and to me it is surprising that the old forms should still be grown so largely for market, many of which we see exposed for sale are miserable both in appearance and quality. Mr. Bowerman has been the means of giving the public other choice stocks of vegetables, his type of Ailsa Craig Onion being still unsurpassed, and the Hackwood Park Tomato still one of the best. His latest introduction, I fully believe, is destined to take a prominent position among our list of choice vegetables.

E. BECKETT.

A VALUABLE AUTUMN LETTUCE.

THERE are so many good Lettuces early in the season that it is diffi-



THE NEW RUNNER BEAN HACKWOOD SUCCESS.
(Reduced one-fifth. Given an award of merit, R.H.S., August 25, 1903.)

cult to make a note of their special qualities, but in the autumn, say from September and later, there is less choice, and any variety that does well is worth special attention. For the past few seasons I have grown Sutton's Favourite, and each year it is more appreciated. Although this season all green or succulent vegetables have grown without much attention, the Favourite Lettuce is so good, and in most cases so superior, that I think for autumn supplies it is unequalled. I can thoroughly recommend it for early winter supplies, as during the last few seasons it was not injured by frost in the early winter. It is most attractive in appearance, and the hearts are so tender that it requires care in handling. There is no variety at this season known to me that is so tender, and the plants, when full grown, remain a long time fit for use. Unlike some varieties, it does not run to seed quickly, and this is a great gain as some sorts are no sooner fit for use than they bolt, and are useless. I should mention that this is a Cabbage variety, and certainly one of the best of its section. When sown in June and July for autumn supplies it is most valuable. It is quite as good for spring sowing, owing to its freedom from running and its compact growth. G. W. S.

THE AUTUMN AND WINTER TURNIP SUPPLY.

Few vegetables are in greater demand in winter than good Turnips, and those sown now will be large enough for use at the season named. Many advise earlier sowing, but it must be remembered that large roots are bad keepers, and are not nearly as hardy as the medium or even small roots. In the North the culture differs from the South, and in Scotland there are few gardens of any size but that would give the golden or yellow-fleshed Turnip a goodly space for winter supplies, indeed such sorts as Golden Ball or the yellow Turnip under different names, will be found more serviceable for exposed positions or cold soils. The roots remain sound well into the spring. Often in February and March the earlier sown Turnips will have become soft and flavourless, especially the white ones. In a measure the roots are greatly influenced by the soil, so that it is well to study varieties more carefully at this season.

There is no lack of varieties, and the best for the winter are well known by most growers, but I think we could with advantage grow more solid roots and get less size and better quality; a root the size of a cricket ball is large enough for all purposes. As proved so often, both at exhibitions and at home, the large root is often poor and flavourless, whereas the smaller is solid and sweet.

Another point often overlooked is that the Turnip can be much improved in flavour by a little attention to culture, and often old garden soils would be better if not dressed with animal manure for a season, but quick-acting fertilisers. The best roots I ever grew were in poor soil dressed liberally with charcoal refuse and nitrates, and the plants winter well when not over-manured. I have referred to Golden Ball, and I may also place Yellow Perfection in the same list; as regards quality the latter matures very quickly, and is of very fine flavour, having a short top and rather flat root. For keeping I prefer a round root such as Golden Ball. The Messrs. Dobbie, of Rothsay, have a splendid golden-fleshed Turnip which is remarkably hardy, and much grown in Scotland. The Malta is excellent for keeping, and is a great favourite for heavy soils in the Northern Counties. I have also seen the Golden Ball, or a variety very much like it, grown under the name of Orange Jelly, but the true Golden Ball is, in my opinion, a better root.

Another yellow Turnip is called Golden Stone, also Goldball, but these are similar to the Orange Jelly. The yellow-fleshed Turnips are very sweet when young, and, I think, superior to the white. I am aware that many object to the colour, but I think it is a gain to have diverse colours in vegetables, especially when the flavour is so good.

No note on the autumn or winter supply would be complete without referring to Veitch's Red Globo. For use at the season named there is none

better. It is one of the finest garden roots we have, and very handsome, and specially adapted for present sowing. It is a white root with a red colour at the upper part of the bulb, and the flavour is first-rate. With attention to details good roots of this variety may be had well into March or even later. The Green Top Stone Turnips are also good keepers. These roots are noted for their solidity, and the Potrowsky or Finland is much grown abroad for use in winter. This is not a white root nor much favoured in this country. I consider our Golden Ball superior. A very distinct Turnip is the Chirk Castle or Black Stone, a very hardy white-fleshed Turnip with a black skin; it is a very good winter Turnip, and one that will thrive where others fail. This I have often seen sown merely to supply green tops in the spring. It is one of the last to run to seed, and the roots remain solid a long time, but it should not be grown large.

There are others, but those I have named are best for the season noted, and for keeping as long as possible. I would advise sowing in August for this purpose, and the giving of more room at this season, so that the roots can be kept free from weeds. Give an open position and well-cultivated land. G. WYTHES.

SIR J. LLEWELYN POTATO.

It sometimes happens that when an honoured name is coupled with some garden product this latter is worthy of its appellation. Unfortunately it is not always so; hence the adoption of personal names too often proves to be the reverse of a compliment. Thus we see well named the Prince Albert Apple, the Gladstone Pea, the Marquise de Salisbury Rose, the Beaconsfield Fuchsia, the Ellen Willmott Verbena, and so on, things that will live and be popular, not being, as so many ephemeral things are, named to-day and forgotten to-morrow. In the former category evidently comes the Sir J. Llewelyn Potato, though probably no one would be more surprised or amused at finding his name coupled with a Potato than the worthy baronet. It does not do well everywhere, but where it does so it is first-rate. Mr. Bowerman has it in splendid condition, and producing a grand crop, at Hackwood Park this year, and his noble employer, Lord Bolton, speaks of the cooked tuber in the highest terms. When originally grown at Chiswick the variety stood out beyond all others as a splendid cropper. A. D.

NOTABLE GARDENS.

NOTES FROM LOCKINGE, LADY WANTAGE'S BEAUTIFUL GARDENS.

CALCEOLARIA AMPLEXICAULIS. — A most charming bed of this fine old Calceolaria is just in front of the great conservatory at Lockinge. Not content with planting the bed, which is of irregular shape, with plants of ordinary height, arranged to make a good mass of bloom, Mr. Fyfe has inserted, but more thinly, standards, some 3 feet to 3½ feet in height, thus producing an effect that is quite uncommon, and is of the lightest and most pleasing description. Were the colour a deep yellow it would be rather offensive, but the pale straw yellow, almost lemon colour, of the flowers is very refined. Standards can be grown from cuttings in about two years. Their propagation is not difficult, and may be from cuttings put in at once, or from nice young shoots inserted in warmth in March. They should be induced to reach with clean stems the desired height, then be pinched, and good heads soon form.

Begonias as bedders.—Very pleasing indeed are small beds carpeted with the compact form of Sweet Alyssum (*Koniga maritima*), the plants being spreading and close to the ground, on which grow and flower finely Begonias, both single and small double flowered, white, pink, rose, scarlet, orange, and crimson. So employed, they are far more pleasing than when in big mixed masses, without any dress or relief plants. Using Begonias

in that way places the bedding very little above the normal type seen in big beds of scarlet or other coloured Geraniums. Large-flowered varieties are much less effective than those having rather small flowers. Close by these beds are growing, in large tubs, a few monster Sweet-scented Verbena (*Aloysia citriodora*). These are some 9 feet in height and 8 feet broad, are all in luxuriant leafage and flower, and emit a delicious perfume. These fine plants have been in existence about ten years.

Sweet Peas.—Whilst there are scores of fine clumps of these in the open ground, each one being restricted to a single variety, very interesting, standing slightly raised, and at the back of a flower border, are a dozen clumps in 18-inch tubs. These are generally quite as fine as those in the open ground, and their growth averages 7 feet in height, and abundant bloom tells of the admirable culture bestowed on them. Those who love Sweet Peas, and have limited garden areas, may well try tub culture. The tubs are 16 inches deep, and, of course, filled with good compost. As with so many others, a beautiful white-flowered spike was standing up out of a mass of Miss Willmott Pea, and a fine white it was also. Very effective, and greatly admired, are the single and semi-double Hollyhocks in the borders. These display singularly lovely hues of colour, and are most decorative. It is to be hoped that the florist will leave these beautiful singles alone.

The Conservatory.—In this house and in the corridor adjoining singularly charming effects are at present obtained by a fairly free use of the soft blue and pure white forms of *Campanula pyramidalis*, which, interspersed with other plants, gives a very delightful floral charm to the whole. Attached to a pillar in the house is a plant of *Bougainvillea sanderiana*, some 20 feet in height, literally a mass of floral bracts from top to bottom. It is thus evident that, allowed room, the assumed bush variety will also become a climber. It is here freer and less rampant than *glabra*. In the nursery plant houses are being grown on for the winter decoration of the conservatory, quantities of *Clerodendron fallax*, *Poinsettias*, *Euphorbia jacquiniiflora*, and other things that will be of inestimable value in due course, while outdoors are several hundreds of bush *Chrysanthemums*, such as will in their season give a wealth of flowers. In every direction flowers are in the ascendant.

Fruit.—Though there is an exceedingly poor show of fruit outside at Lockinge, within there are splendid crops of Grapes, Peaches, Figs, Melons, &c. For many years Muscat of Alexandria Grapes have been well done and there is a very fine crop this year, so there is of Madrasfield Court, Black Hamburg, Foster's Seedling, and other later varieties. In making both Vine and Peach borders Mr. Fyfe uses, among the turves, thin layers of wood ashes, mortar rubbish, bone dust, and some Vine manure. Borders are enlarged slowly and are rather narrow than overdone. It is a feature here to keep the fronts of the borders open, so that air can penetrate to them. Peach borders are served the same. It is a practice that is strongly recommended. All the same the soil is made very firm when so treated, it dries less rapidly, and roots are much more fibrous. Figs are not trained, as is customary, close to the glass, but grow in a semi-wild way. So treated they fruit with exceeding profusion.

Vegetables.—In Lockinge gardens these most important products are far from being neglected. It would indeed be possible just now to set up a collection that would probably surprise some of the champion exhibitors. If Mr. Fyfe should exhibit at Chiswick on the 29th he will be able to put up a highly meritorious collection. He has the finest Carrot bed seen anywhere this season. His Onions are indeed splendid, bulbs clean, bright, and well finished. Celery is massive, and is chiefly blanched by using bands of paper, by which cleaner growth seems to be assured than is the case when soil blanched. Peas, Beans, Leeks, Turnips, &c., are all full of vigour and promise. The soil is naturally so chalky that while singularly unsuitable for Peas, it has to be largely made for vegetables, yet the general produce is superb. It is pleasant to find that, where plants, flowers, and

fruits are so plentifully and well done, vegetables are equally good. The modern gardener has indeed to be a first-class all-round man. A. D.

RECENT PLANT PORTRAITS.

THE September number of the *Botanical Magazine* figures

Senecio tanguticus.—Native of Western China, also known as *S. Henryi*. This is a handsome herbaceous Groundsel, with tall branching spikes of small yellow flowers. Sent by Dr. A. Henry.

Draba Gilliesii.—Native of Chili. This is also known under the synonyms of *D. araucana*, *D. Davila*, *D. rosulata*, and *D. stolonifera*. It is a pretty little alpine with spikes of pure white flowers with yellow anthers. Sent to Kew by A. R. Bulley, Esq.

Iris Bucharica.—Native of Bokhara. This is a very beautiful and free-blooming Iris, closely allied to *I. orchioidea*. It has pale creamy centre petals and bright golden falls. It was sent to Mr. Van Tubergen of Haarlem by his collector, Sintenis, with *I. Warleyensis*.

Aloe Cameroni.—Native of Eastern tropical Africa, also known as *A. macrosiphon*. This is a very ornamental member of this family, with spikes of long tubular rose-coloured flowers with yellow tips.

Psychotria capensis.—Native of South Africa. It is known also as *Grumilia capensis*, *Logania capensis*, and *Grumilia globosa*. This is a very pretty shrub, with bunches of small yellow sweet-scented flowers and dark green foliage like *Pittosporum Tobira*. It flowers freely every spring in the temperate house at Kew.

The first number of the *Revue Horticole* for September figures

Eulophiella peetersiana.—Native of Madagascar. This is a very handsome Orchid, producing tall spikes of large rosy purple flowers.

The September number of the *Revue de l'Horticulture Belge* gives on a double plate a portrait of a handsome bramble,

Rubus reflexus var. *pictus*, which was somewhat inadequately figured in the sixth volume of the *Botanical Register* in 1820 under the name of the Canton Bramble. W. E. GUMBLETON.

A VILLAGE SHOW AND SPORTS.

We cannot help feeling that if private cottage garden shows of the kind inaugurated by the thoughtfulness and energy of Miss Willmott, for the united villages of Great and Little Warley, were more general much might be done to bring back somewhat of the old English heartiness and gaiety, with, perhaps, an element of betterment intermingled with it in the direction of refinement. They would, besides, help to draw classes together which are slowly but surely drifting apart to the detriment of both.

It was matter for rejoicing that the weather on the 3rd inst. was in happy mood, and lent its aid to the carrying out successfully of a most promising programme. Not the least part of the day's enjoyment was due to the throwing open of Miss Willmott's beautiful garden and grounds.

All efforts of this unselfish nature entail a great amount of labour upon their devisers, but it is work which, in the main, brings a well-earned reward. The absence of any professional element in the Warley cottage garden show proves the sympathetic interest taken by the promoters in the attempts of those who are often disheartened by the impossibility of competing against greater knowledge and advantages. A fair start and no favour appeals strongly to the best side of the sturdy British character. This feature should be noted by all who desire to emulate so good an example and to set on foot a similar enterprise for the welfare and cheer of their poorer neighbours. We have rarely seen a list of prizes more calculated to attract every member of a village community and to bring an interest throughout the whole year into homely working lives. The recent

words of the Dean of Rochester on the good influence of horticultural shows of this simple character are much to the point: "If you can induce a working man to take some pains with his vegetables, and teach his wife how to cook them, you will do more to keep him sober than all the blue ribbons and pledges worn or signed." May the pleasant gathering at Warley Place be fruitful in all excellent results.

Most indefatigable was the honorary secretary and treasurer, Colonel Whittington, C.B., of Codham Hall, and his painstaking endeavours to have everything done in a business way contributed materially to the success of this, the fifth cottage show, and we must not forget the work of his assistant, Mr. Preece, head gardener to Miss Willmott.

There were several groups not for competition which made the tents bright with colour. Messrs. R. Wallace and Co., Kilnfield Gardens, Colchester, set up a fine group of Lilies, Gladioli, and other bulbous and herbaceous plants. Of Lilies we noted the massive *Auratum* platyphyllum and its forms in excellent condition, the beautiful *L. Henryi*, the richly coloured forms of *L. speciosum*, such as the broad petalled *cruentum*, *rubrum*, and *album novum* (white); *L. Maximowiczii*, a refined Tiger Lily, with *L. Batemanii*, and the double and single forms of *Tigrinum*. Gladioli were in strong force, some fifty varieties were displayed in bold fashion, and of these we noted the singularly coloured *Mephistopheles*, deep red with white throat; *Van Dael*, pale salmon-pink, a plant that received the Royal Horticultural Society's award of merit at the last Drill Hall meeting; *Chrysolora*, a fine variety of yellow tint, with a carmine lip; some very beautiful blue, violet, and purple seedlings of the *Lemoinei* type; the magnificent *G. princeps*, whose enormous flowers of rich scarlet hue were greatly admired, and some large flowered varieties of the *Childsi* group, such as *Mezin* Scott, *Columbia*, and *Mrs. Beecher* were splendid in their richness. Of miscellaneous plants *Montbretia*, *Germania* (orange-red), and *Crocus* (old gold) were good; *Colchicum*, *Bornmulleri*, and a large variety of *Autumnale* are showy kinds of autumn *Crocus*, and the yellow cups of *Sternbergia macrantha* were well displayed in masses here and there. *Tigridias*, which appear wonderfully effective on the exhibition table, were shown in six varieties, all from buds cut the previous day and developed in water. Other good things included seedling *Delphiniums*, cut flowers of a new race of hybrid *Gazania*, some of the choicer *Tritomas*, such as *Macowani*, *Rufus*, and *Lemon Queen*; and the variegated *Water Reed*, *Phragmites* fol. var., an excellent plant for damp and marshy places.

Messrs. Russell and Sons, Richmond, had a beautiful collection of cut Roses and trees and shrubs.

A capital collection of fruit was shown by Mr. Preece, and flowers also; and Sweet Peas by Mr. Brown of Brentwood.

It was a most successful little show, and in the afternoon the sports were held near the house. These were organised most successfully by Mr. Berkeley, and Mrs. Berkeley also did everything possible to make the day a pleasant one for the villagers.

SOCIETIES.

DUMFRIESSHIRE AND GALLOWAY HORTICULTURAL SOCIETY.

THE floral fête, under the auspices of this society, held in Castledykes Park, Dumfries, on the 28th and 29th ult., was among the best it has held since its foundation in 1812, both the number of exhibits and the cultural skill they displayed being greatly in advance of last year. The show was gracefully opened by Mrs. Balfour-Browne, of Goldielee, followed by an eloquent speech by Mr. Balfour-Browne, K.C.

The tables and groups of plants and the dinner table decorations were among the best ever seen in Dumfries. In the class for table of plants arranged for decorative effect, Messrs. James Service and Sons were first, winning the Borough of Dumfries Cup and a money prize over last year's winner; Mr. J. M. Stewart, Mollaness, Castle Douglas, who also showed an exceedingly fine table, was second; Mr. J. Houston, Crichton Royal Institution, was third, and W. Middleton and Son, Dumfries, fourth. For a circular group of plants Messrs. Service were first; Mr. R. Grigor, Woodlands, being a good second; third, Mr. J. Houston.

There were six competitors for dinner table decorations,

and eventually Miss Jean Service, Janefeld, was placed first; Kerr Bros., Dumfries, second; and Miss L. Rutherford, Crichton House, third. The competition was very close indeed.

The open classes were well filled, Palmer and Son, Annan, being first for twenty-four Rose blooms; second, W. Learmont and Son, Dumfries; third, J. Bogle and Son, Dumfries. Eighteen Tea Rose blooms: First, Mrs. Rutherford, Crichton House; second, W. Learmont and Son. Collection of Dahlias: First, J. Bogle and Son. Twelve sprays Cactus Dahlias: First, J. M. Stewart, Mollaness; second, J. Bogle and Son. Carnations: First, Kerr Bros. Sweet Peas: First, W. Learmont and Son; second, W. Adamson, Woodbank; third, W. Middleton and Son. Hardy herbaceous flowers: First, W. Middleton and Son; second, T. Kennedy and Co., Dumfries; third, W. McGuffog, Balmac, Kirkcudbright.

Floriata Class.—Table glasses of flowers: First, Kerr Bros.; second, Middleton and Son; third, Miss Rutherford, Crichton House. Basket of flowers: First, K. Mackenzie, Conneath; second, W. Adamson; third, Miss Jean Service. Bouquets (showers): First, Kerr Bros.; second, W. Middleton and Son. Basket of Roses: First and second, K. Mackenzie; third, Miss Rutherford.

In the gardeners' and amateurs' classes there was very strong competition, the leading prize-taker with pot plants being C. M'iver, Lincluden.

In cut flowers the following led in various classes: Miss Whitelaw, Summerhill, and Messrs. C. M'iver, W. McGuffog, K. Mackenzie, J. Duff, Threave; J. Mundell, Allanbank; R. Young, Gracefield; T. and W. Tweedie, Monswald; J. M. Stewart, J. Wright, Locharbriggs; J. Houston, D. Whitelaw, Locharbriggs; and J. Henderson, Elmbank, Dumfries.

Outdoor fruit was not so good as last year, but that from under glass was superior. Mr. J. M. Stewart had the best collection of indoor fruit; Mr. B. Rutherford, Glenlair, that grown outdoors. Grapes were very fine, Mr. J. Henderson, Mr. B. McDonald, Mr. J. Duff, and Mr. J. Houston taking the chief prizes. Vegetables were a strong class with both gardeners and amateurs, Mr. J. Duff being first for a collection of twelve, and Mr. W. Anderson, Collin, for six.

Non-competitive exhibits were not numerous, the principal being tables of plants from T. Kennedy and Co., Dumfries, and Fotheringham and King, Dumfries; Roses from Palmer and Son, Limited, Annan; Dahlias from Mr. J. Kennedy, Dumfries; Onions from Mr. McGuffog, Balmac; and garden seats, &c., from Mr. Pollock, Tarbolton.

ROYAL HORTICULTURAL SOCIETY OF IRELAND.

AUTUMN SHOW.

THE autumn show of flowers under the auspices of the Royal Horticultural Society of Ireland was held in Merrion Square, a centre which, by reason of its easy access and pleasant situation, lends itself admirably to displays of this kind. His Excellency the Lord Lieutenant and the Countess of Dudley visited the flower show at four o'clock, and on arrival at the entrance they were met by the following gentlemen representing the council: Mr. Goodbody, Mr. Drummond, Mr. Bewley, Captain Ryall, and Mr. Walter Keating, jun., secretary, and conducted through the several tents in which the plants, blooms, and fruits were displayed. In the matter of exhibits it was very satisfactory to see that there was a considerable increase in every section, and in the quality of most of the displays there was an extremely creditable improvement noticeable. It was decidedly interesting to note that cut flowers were largely and well shown, notwithstanding the unfavourable climatic conditions under which they have been grown this season. Dahlias, especially the newer class of Cactus, were remarkably well exhibited, both in quantity and quality; but the centre of attraction and the feature of the show was the large table of Roses exhibited by Messrs. Alexander Dickson and Sons, Limited, Royal Irish Nurseries, Newtownards, and 61, Dawson Street, Dublin, who exhibited upwards of 100 blooms of the highest excellence. The flowers staged were of unusual size and substance for the season, and may be well described as a capital display. Fruit was also well represented, and, in fact, all the sections of this interesting show were extremely creditable, making the work of the following gentlemen, who acted as judges, not too easy: Plants, Mr. A. C. Campbell and Mr. R. Davis; cut blooms, Mr. W. E. Gumbleton and Mr. R. Anderson; fruit, Mr. Bedford and Mr. C. B. Hamilton. Taking the show generally, it was extremely satisfactory to notice that the exhibits were probably representative of a larger area of the country than on any previous occasion, and this fact would seem to indicate that a more satisfactory period is being entered upon. An apparatus for the destruction of weeds on lawns, tennis and croquet grounds, &c., without injury to the surrounding turf, received a good deal of attention from visitors to the show. The instrument is in the form of a sharp-pointed syringe, which is pushed down into the weeds and ejects sufficient of the fluid into the roots to kill them. Dandelions, Plantains, Docks, and other such troublesome weeds can thus be completely got rid of. The apparatus is manufactured by Messrs. Mark Smith and Co., Limited, and can be had from Mr. D. M. Watson, pharmaceutical chemist, 61, South Great George's Street, who is also the Irish agent for their well-known "Perfect" weed killer, liquid and powder. It is only right to say we are indebted to the *Daily Express* (Ireland) for the above particulars.

PLANTS.

Group of foliage and flowering plants, twelve, each different, Ferns excluded: First, Mr. F. A. Millar (gardener, Denis Colohan); second, Mr. David Drimble (gardener, J. Byrne). Exotic Ferns, six, each different: First, Mr. F. A. Millar; second, Mr. W. W. Goodbody (gardener, Thomas Doherty); third, Mr. David Drimble.

Six Coleus, each different: First, Mr. J. Millar (gardener, Phillip Geoghegan); second, Mrs. Meade (gardener, J. Colgan); third, Mr. F. A. Millar.

Dahlias, Cactus, stand of twenty-four, not less than twelve varieties. A challenge cup, value £5, and first prize

presented by Lord Ardilaun. Cup to be won three times before becoming the property of the winner. The society adds second and third prizes: First, Lady Frances Doyle (gardener, James Mitchell); second, the Right Hon. Lord Carew (gardener, John McLennan).

Dahlias, Cactus, twelve sprays, three blooms in each, each spray to be a distinct variety, and Dahlia foliage only to be used. The general effect and method of staging to be taken into consideration as well as the quality of the flowers. A challenge cup, value £5, presented by Messrs. William Watson and Sons, Clontarf Nurseries, Dublin. The cup to be won three times before becoming the property of the winner. Money prizes awarded by the society: First, Lady Frances Doyle; second, Right Hon. Lord Carew; third, Right Hon. Lord Ashtown (gardener, A. Porter).

Dahlias, Pompon, stand of twelve bunches of three blooms each, not less than six varieties: First, Colonel the Hon. C. F. Crichton (gardener, W. F. Mitchison); second, Mr. John Miller; third, Lady F. Doyle.

Roses, stand of twelve blooms, not less than six varieties: First, Mr. F. A. Millar; second, Captain Mark Munnell (gardener, John Ahern); third, Colonel the Hon. C. F. Crichton.

Roses, Tea, stand of twelve blooms, not less than six varieties: First, Mr. Edmund D'Olier (gardener, J. Harvey); second, Mr. F. A. Millar.

Gladioli, stand of twelve spikes, not less than six varieties: First, Sir Roger Palmer, Bart. (gardener, C. Brennan); second, Colonel Jervis-White (gardener, W. Fitzgerald).

Begonias, double tuberous, stand of thirty-six separate blooms, in at least eighteen varieties. Challenge cup, value £7, presented by Messrs. Hartland and Son, The Lough Nurseries, Cork, with money prizes added by the society. The cup to be won three times before becoming the property of the winner: First, the Right Hon. Lord Ashtown (gardener, A. Porter); second, Dr. Perrier Osborne (gardener, A. E. Bennett).

Begonias, double tuberous, stand of twelve separate blooms, not less than six varieties: First, the Right Hon. Lord Carew; second, Captain Mark Munnell.

Collection of hardy cut flowers, annuals and biennials excluded, to be shown in vases which will be provided by the society. Space not to exceed 16 feet by 4 feet. Prizes presented by Lord Ardilaun: First, the Right Hon. Lord Plunkett (gardener, W. Webster); second, the Right Hon. Lord Carew; third, Lady M. F. Doyle.

Asters, any variety, stand of twelve blooms. Prizes presented by Messrs. William Drummond and Sons, Limited: First, Mr. Reginald T. Harris; second, Mr. David Drimmlie.

Carnations or **Plochees**, stand of twelve bunches, three sprays of one variety with foliage to form a bunch, at least six varieties, Malmalsons excluded: First, Mr. John Smallman; second, Surgeon-General Beaumont (gardener, J. M'Linden); third, the Marquis of Sligo (gardener, James McKenzie).

Twelve bunches Sweet Peas, twelve distinct varieties named, to be shown in vases, which were provided by the society: First, Mr. H. J. R. Digges; second, Captain D. J. Palmer (gardener, J. Ford).

Six bunches Sweet Peas, six distinct varieties named, to be shown in vases, which were provided by the society: First, Colonel the Hon. C. F. Crichton; second, Lady M. F. Doyle.

Dahlias, show, stand of twenty-four blooms, not less than eighteen varieties: First prize and silver medal, Messrs. Alexander Dickson and Sons, Royal Nurseries, Newtownards; second, Messrs. W. Watson, Clontarf Nurseries.

Dahlias, Cactus, stand of twenty-four blooms, not less than eighteen varieties: First, Messrs. William Watson and Sons; second, Messrs. Richard Hartland and Sons; third, Messrs. Alexander Dickson and Sons.

Roses, stand of forty-eight blooms, not less than twenty-four varieties: First prize and society's silver medal, Messrs. Alexander Dickson and Sons. A cultural certificate was also given.

Gladioli, stand of twenty-four spikes, each different: First prize and society's silver medal, Messrs. Hartland and Son.

FRUIT AND VEGETABLES.

There was excellent competition in the many classes provided for these. For a stand of six bunches of Grapes the first prize and society's silver medal went to Lady Emily Bury (gardener, R. McKenna), the second prize going to Lord Ashtown, and the third to the Marquis of Downshire (gardener, Thos. Bradshaw).

In the open classes for fruits and vegetables the chief prize-winners were Lord Ashtown, Lady Emily Bury, Mrs. Meade (gardener, James Colgan), the Marquis of Downshire, Lady M. Doyle, the Marquis of Sligo, Mr. Hamilton Stubber (gardener, F. Flanagan), and the Right Hon. Lord Plunkett (gardener, W. Webster); and in vegetables Lord Ashtown, Captain D. C. Palmer (gardener, T. C. Ford), Colonel the Hon. C. F. Crichton, and Sir Roger Palmer (gardener, C. Brennan).

MISCELLANEOUS.

A cultural commendation was awarded to Colonel the Hon. C. F. Crichton for a collection of Sweet Peas.

Messrs. Hartland and Sons, Cork, showed Gladioli, hardy flowers, zonal Pelargoniums, and superb Begonias. Gold medal.

Messrs. Ramsay and Sons, the Royal Nurseries, Balls Bridge, had a beautiful stand of plants and floral designs, besides an interesting series of Gladioli. Gold medal.

Messrs. Drummond and Sons showed hardy flowers in great variety, Roses, Sweet Peas, and other things. A delightful exhibit. Gold medal.

Messrs. Edmondson and Sons, Dame Street, had Asters in fine variety, and received a special commendation.

Messrs. Dicksons, Chester, had hardy flowers in profusion; a very fine display. Silver medal.

Messrs. Watson and Sons, Clontarf, had Pompon and Cactus Dahlias in great variety, also Carnations of very fine sorts, one, a seedling, being specially noteworthy. We should like to know its name. Silver medal.

Valotta purpurea was superbly shown by Mr. F. A. Millar.

Messrs. Hogg and Robertson showed Gladioli in great variety.

Messrs. Alex. Dickson and Sons, Newtownards, had hardy flowers, which made a bright display.

The officials are to be congratulated on the success of the exhibition.

CROYDON HORTICULTURAL SOCIETY.

THE fourth annual outing of the Croydon and District Horticultural Mutual Improvement Society took place on Wednesday, the 2nd ult., about thirty members availing themselves of the day's pleasure. Starting from the headquarters in George Street, the party had a most enjoyable drive to Burford Lodge, where, through the kindness of Sir Trevor Lawrence, they were shown round the gardens by Mr. Baines, the able head gardener. The visit proved full of interest and enjoyment. Afterwards the drive was continued to Dorking, where luncheon was provided. In the afternoon, Albury Park, the residence of His Grace the Duke of Northumberland, was the rendezvous, and the spacious gardens and pleasure grounds were inspected. On the return journey a stop was made for tea, after which the homeward journey was continued.

A new departure in the programme of this society was successfully carried out at their rooms recently, when "Discussions on Floral Decorations with Demonstrations" created a very enjoyable two hours' entertainment. The principal interest was centred on three dinner tables, which had been tastefully decorated by Messrs. M. E. Mills, A. Maalen, and P. F. Bunyard respectively, and the decorative excellence in the floral art displayed by these gentlemen called forth much praise from all present. The discussion was principally on table decorations, but many useful suggestions were given on other decorations, which will prove beneficial to those who require fresh and pleasing ideas for this subject. As we are all aware, this part of the gardener's work forms a very important item, and new designs are eagerly sought after. To the amateur also it is very interesting, for no decoration in the house lends such brightness to the rooms as flowers. Other interesting exhibits came from Mr. W. Bentley, who brought *Drosera rotundifolia* (one of the British species of Sundew); from Messrs. Thompson and Sons, Wimpoleton, a specimen plant of the new double-flowered *Gypsophila paniculata*; from Messrs. Wells and Co., Earlswood, two new *Chrysanthemums*, *The Champion* and *Carrie*, the former having that day gained an award of merit at the Royal Horticultural Society's meeting in London; and from Mr. A. C. Koffey four excellent specimens of his Improved Telegraph Cucumber. A hearty vote of thanks to the exhibitors brought the evening to a close.

The next meeting will be on Tuesday next, when Mr. G. W. T. Shrubhall will take for his subject "Cryptogamic Plants."

CARDIFF GARDENERS' ASSOCIATION.

THROUGH the kind invitation of Mr. John Basham, F.R.H.S., Fair Oak Nurseries, Bassaleg, thirty of the members, starting from the Grand Hotel (headquarters) in brakes, drove to Bassaleg and were entertained by Mr. and Mrs. Basham to a sumptuous tea. Afterwards the party were conducted through the fruit gardens, where a fine stock of Apple and Pear trees are carrying very heavy crops, particularly the following varieties: Allington Pippin, remarkably fine; Bismarck, grand; Colonel Vaughan; Kilmville Seedling, an enormous crop; Lady Sudeley, Lane's Prince Albert, an enormous cropper and an abundant supply; The Queen, spoken of as a shy bearer, carrying enormous crops; Schoolmaster, good; as also were Stirling Castle and Warner's King, and very fine fruits of Peasgood's Nonsuch. Young Pear trees on walls were carrying good crops. Plum trees were remarkably good. A cleaner and healthier lot of fruit trees it would be impossible to find, and though Mr. Basham suffered failure last year he is amply rewarded this season, for tons of Apples are approaching maturity. Light refreshments were served in the gardens. After thanking Mr. and Mrs. Basham for their kind hospitality, the brakes conveyed the party back to headquarters after spending a most enjoyable outing.

JOHN JULIAN, Hon. Sec.

BRISTOL GARDENERS' ASSOCIATION.

THIS association held its monthly meeting at St. John's Rooms on Thursday evening, the 3rd ult., Mr. E. Poole, F.R.H.S., occupying the chair. The lecture for the evening was on "Bees," and was given by Mr. Jordon, of the Bristol Bee-keepers' Association, who in a very able and clever manner described the best methods of modern bee-keeping as against the old-fashioned and barbarous ways of our forefathers, showing that by the use of the modern bar-frame hive bees can be handled with impunity, examining at will and getting the fullest and best results from their labours. He advised bee-keepers to make a special study of these industrious insects, which would help them considerably to become successful bee-masters. Gentlemen were becoming more interested in agriculture, and were realising the advantages through keeping in their gardens a hive or two of bees for fertilising their flowers and fruit. The time at the disposal of Mr. Jordon was, unfortunately, too short for such an interesting subject, and he was asked to continue his lecture at some future date, which he promised to do. A discussion followed Mr. Jordon's lecture, and a cordial vote of thanks was passed for the most enjoyable evening.

CHARD FLOWER SHOW.

THIS show was held on a recent date, and the number of entries showed a gratifying increase over those of last year. The exhibits were staged in three large marquees. In the amateurs' tent, as usual, the ladies' exhibits were a great attraction, and we wish there had been many more visitors present to admire the exquisite taste and skill displayed by the exhibitors. In this section, Miss Grace Chaffey, of

Chard, was most successful, securing no fewer than three first prizes for, respectively, decorated dessert table for six persons, device for table decoration, and hand bouquet. In each case this was well deserved. There were seven tables arranged for dessert, and the judges must have had some difficulty in deciding the second honours, which went to Miss Florence Spicer, Mrs. F. W. Baker, of Arminster, being highly commended. In the class for buttonholes Miss Chaffey had to give way to Miss M. Powne. Miss Evans, of Forde Abbey, sent collections of flowering and foliage plants and fruit not for competition. Both were beautifully arranged, and the former was remarkable for the fact that the whole of the plants were either grown in a frame or the open air. It was, indeed, an object-lesson, showing what can be done at a nominal expense. The flowers in almost endless variety and very fine specimens.

Messrs. Jarman and Co., of the Chard Nurseries, represented by a grand lot of Dahlias and other plants. This firm had sent a splendid exhibit to Shrewsbury on the same day, for which they were awarded the gold medal.

Dahlias were, as usual, a strong class, Mr. B. C. Shaw and Mr. W. Heilair being the principal exhibitors.

Mr. Baker and Mr. Small took the prizes for Roses, Mr. Lionel Patton and Captain Elton showed charming varieties of Sweet Peas.

With regard to the flowers generally, it was remarked that the exhibits would have been far more attractive had they been shown with their natural foliage, instead of being laid out in their bare state or with "paper collars" round them.

Major Aldworth secured first prize for a perfect collection of vegetables, twelve kinds, and Mr. J. Wyley took the blue card for a collection of six.

The cottagers were well to the front in all classes. The collections of vegetables were especially good, whilst the prize-winning dish of twelve cooked Potatoes was an ideal exhibit. The children's bouquets and collections of wild flowers were altogether charming.

"JUDGING CACTUS DAHLIAS."

On the 1st inst. Mr. Wyatt gave a lecture before the Royal Horticultural Society on "Judging Cactus Dahlias." Our report was unavoidably crowded from last week's issue. Mr. Wyatt said that some standard for judging Cactus Dahlias was necessary. A good bloom should have long and narrow florets, recurved at the edges; there must be no flat florets. The following table of points for judges was recommended by the lecturer: Form, 4 points; size, 3 points; colour, 2 points; setting up, 1 point. With regard to the points for size, Mr. Wyatt said the maximum should never be given when the bloom was coarse. Concerning the judging of bunches of one variety, Mr. Wyatt said the whole bunch should be considered as one flower, and not each bloom judged on its merits.

The Rev. W. Wilks thought more points should be given to colour than size; he deprecated mere size in flowers. With respect to form Mr. Wilks thought that it was wise to fix too strict an ideal, as ideas as to the correct form of flowers change.

Mr. Stredwick said he preferred small Dahlias. Personally he would rather grow flowers of the Cactus Dahlia more than 8 inches across. With regard to setting up the blooms at exhibitions Mr. Stredwick thought points ought to be given for that. The flowers might be well grown, but not everyone could exhibit them well. At the forthcoming Earl's Court show Mr. Marshall will offer a prize for small Cactus Dahlias, and if these were successfully encouraged they would be much admired.

Mr. F. Treseder favoured size in a flower provided other qualities were present also. He thought the National Dahlia Society should not lay down specified rules as to what constitutes a Cactus Dahlia, as tastes differ. Another speaker also supported the contention that size is important provided the bloom does not lose in refinement. Mr. J. F. Hudson said that a false idea with regard to size was being put forth; a large bloom might be refined. He thought, however, that small blooms were more beautiful. Mr. Edward Mawley, the chairman, was of opinion that also ought to be considered, but not size alone.

Weather in North Wales.

—The following notes may be of interest to readers of THE GARDEN: The month of August was most unfavourable as regards rain, wind, and cold. Potatoes are showing signs of disease, and other crops are suffering from the extreme wet. We have registered the following for August: Rain, 5'34 inches. On seven days there was not enough rain to register, and only three really fine days. On three nights the thermometer fell below 37° Fahr., and on four nights below 40°, with very rough and cold east winds.—J. S. HIGGINS, *The Gardens, Râg, Corwen, North Wales.*

Mr. Robert Sydenham.—Many friends of this well-known horticulturist, who a short time ago started upon a voyage for the benefit of his health, will be gratified to learn that he has safely arrived at the Cape of Good Hope, and was feeling—to use his own words—"wonderfully better for the trip, and quite himself," and, after visiting the principal towns in that portion of Africa, he "hopes to return fit and ready for anything." In all probability he will be present at the exhibition of the National Chrysanthemum Society, to be held at the Crystal Palace early in November.

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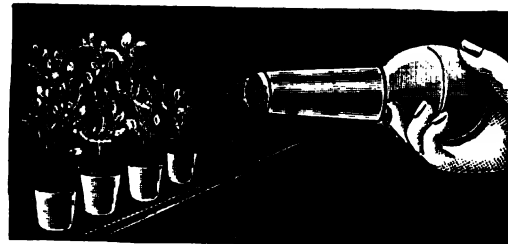
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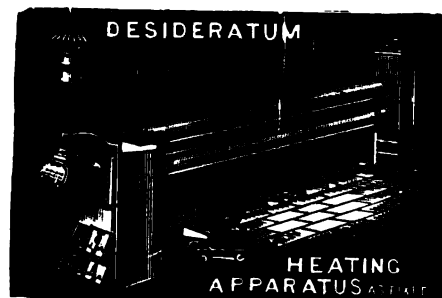
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AGENTS WANTED.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Names of plants.—V. E. W.—*Isotoma longiflora* (see Bot. Register, xiv., t. 1200).—W. E.—1, *Elmagnus pungens* variegata; 2, *Cypripedium Curtisii*; 3, *Eunonymus radicans* variegatus; 4, *Olearia Haastii*; 5, *Cupressus lawsoniana*.—A. K.—*Gentiana asclepiadea*.—C. E. F.—*Hypericum androsaemum* (The Tuisan).—T. Walker.—*Hibiscus syriacus*.—Cyclist.—The sketch you sent certainly does not represent either *Malva* or *Mimulus*; the only plant that we can associate it with is *Hypericum humifusum*, it more resembles this than any other. —J. M. W.—*Saxifraga Alzoon rosularia*.

J. D.—Apparently *Lathyrus rotundifolius*. It is difficult to judge accurately from a spray of unexpanded blooms, and in such a case foliage should always accompany flowers, as it greatly assists identification.

Fungus (LETTER LOST).—The fungus sent is a common species, *Pholiota squarrosa*. It will not to any appreciable extent injure the trees, but the fungi may as well be destroyed as soon as they appear, in case they spread to an unusual extent. —G. S. S.

Vegetable growth on carriage drive (T. R. OWEN).—The vegetable growth which has appeared on your carriage drive is one of the Algae. I am away from home, but will let you know all about it on my return. Any of the ordinary weed killers would, I expect, destroy it. —G. S. S.

G. H.—We do not think much of your selection of Roses; Mme. Falcot, Souvenir de S. A. Prince, Rosierette Jacobs, Grisea on Tepitz, and Catherine Mermet are certainly not a good selection. We should substitute Maman Cochet, White Maman Cochet, Mme. Hoste, George Nabonnand, Dr. Grill, Anna Olivier, and Souv. de Catherine Guillot. We should try a bed of the pure scarlet *Princesse de Sagan*. Its flowers are of wonderful colour, but the growth of the plant is weak. The advice in the "Century Book of Gardening" is quite correct.

Destroying thrip and mealy bug (R. K.).—The best insecticide we know of for the destruction of the above pests is Richard's XL All fumigator. It may be had of all nurserymen and dealers in horticultural sundries. A good home-made solution is the following: To 1 lb. of soft soap add half a pint of paraffin and half a pound of black sulphur. Mix the whole well together in two quarts of warm rain water. For syringing the foliage of Peaches or plants add a pint of this mixture to three quarts of water. As a winter dressing for fruit trees it may be used stronger, say half a pint to a quart of water.

Peaches and Vines.—What are the relative merits of Dagmar, Crimson Galande, Dr. Hogg, Violette Hative, and Alexandra Noblesse?—R. K., St. Petersburg. [Our correspondent's observations on the merits of these varieties are so much to the point, and give evidence of such close and critical observations of their qualities, that we doubt if we can help him much further. We would observe that situations and soils exercise varying influences on varieties of Peaches, as they do on many other fruits, so that the grower himself, after a few years' experience and trial with many sorts, must be the best judge as to the varieties which succeed best with him, and with which he is best pleased. Speaking in a general way, it will be found that all fruits possessing the highest qualities as to richness and delicacy of flavour are less robust in growth, and more uncertain as to their cropping qualities than are the varieties possessing ordinary qualities of flavour. Therefore the grower must make up his mind whether to grow a variety of fairly good quality as to flavour, but a sure and heavy cropper, or to be satisfied with a variety possessing the highest quality of flavour but uncertain in cropping. Our estimate of Crimson Galande is very much on a par with our correspondent's. It is certainly handsome, and, we think, of more excellent flavour than Dagmar or Dr. Hogg. These, however, are heavier croppers. Moreover, Dagmar ripens a fortnight or three weeks earlier than Crimson Galande, and Dr. Hogg a week earlier. As regards Alexandra Noblesse, it is a better cropper than its parent, the old Noblesse, and equal to it in flavour and texture of flesh; but it is not a heavy and certain cropping variety, and it is more or less subject to stone splitting. Violette Hative is one of the best standard Peaches we have in England. It is of large size, handsome appearance, delicious flavour, a robust grower, and a good cropper. —E. J.]

The Ivy-leaved Pelargoniums, Abutilons, and Plumbago capensis (R.).—Plants such as may be seen in Hyde Park have taken several years to attain their present size, and are grown altogether in pots, being plunged outside during the summer months. The plants in question are not standards in the ordinary sense of the word, as they are not restricted to a single stem, but are allowed to grow naturally, with the exception of shortening back any particularly vigorous shoot that threatens to interfere with the shape of the plant. The subjects named can all be readily struck from cuttings, for which purpose good, clean short-jointed shoots should be chosen. As the object is to obtain large plants in as short a time as possible, they must be shifted into larger pots when necessary, and from the

commencement should be tied erect to a stout stake. If the cuttings are put in about April and grown in a greenhouse, giving them plenty of room during the summer, they will be well established by the autumn in 6-inch pots. In this stage they may be wintered in the same structure, and in spring shifted into pots 9 inches or 10 inches in diameter. After potting they should be kept somewhat warmer than in an ordinary greenhouse, and frequently syringed in order to start them freely into growth. It is necessary that they be thoroughly hardened off before bedding out time, when they may be plunged out of doors. Given fair sized plants to commence with effective specimens can of course be obtained in less time than from cuttings. When plunged out of doors a little stimulant during the growing season is beneficial. Being lifted in the autumn and wintered in a good light position in the greenhouse any that need it may be shifted in the spring into large pots. With regard to the latter part of your enquiry the plants will not need pruning, and a genial greenhouse temperature in early spring is sufficient for their requirements. For a standard proper, that is, plants with a certain amount of naked stem surmounted by a head, the Plumbago is not suited, while the Ivy-leaved Pelargonium needs a wire framework, as their branches are very brittle. Abutilons, however, readily lend themselves to this treatment, and compact heads can be maintained if the plants are spurred back every winter. The present backward season is against this class of plants, for a visit to Hyde Park on the 1st ult. revealed the fact that though the Ivy-leaved Pelargoniums were giving a moderate display of bloom, there was scarcely a flower on the Plumbago, and a bed of *Erythrina Crista-galli*, usually so telling, had but a solitary bloom expanded. The most effective of the flowering subjects plunged on the grass were some large plants of the dark-coloured *Heliotrope President Garfield*, which were laden with bloom.

Vines deteriorating (A. N.).—The details you give with respect to the change on the part of your Vines from comparative excellence in fruiting to now material badness, is hardly sufficient to enable a proper opinion to be formed by us. Changes of this kind do not occur all at once, but come gradually. If the Vines were so good last year and are so indifferent now, then it would be evident that some sudden check had been given them, such as might arise from the flooding or over-saturating the border in which the roots are by too heavy rains. If the process of deterioration has been spread over two or three years, then it is evident that the roots have got out of the good soil or proper border, into sour and, perhaps, wet soil, below where they fail to find proper nutriment. That is a common cause of deterioration in Vines, and can only be remedied by taking the drastic course of removing all the top soil, finding, lifting, and tying up the roots, removing 12 inches of the bottom soil, putting in 6 inches of coarse rubble, then adding 9 inches of good loamy soil on to that, relaying the roots carefully, adding some fresh soil, and covering them finally about 4 inches to 6 inches with the original soil. In doing this it is very important that a good proportion, say a bushel, or even a wheelbarrow full per carload of wood ashes, old mortar refuse, soot, and just a small quantity, a pint per bushel, of bone dust be added and mixed with all the soil used. This is the method adopted by the best Grape growers when their Vines get into the same condition as yours now are. Shanking of bunches and the production of aerial roots both arise from poor root action. Vine roots should never be buried deep. In the great market vineries they are encouraged to keep near the surface, and are during the fruiting season fed from the surface with top-dressings of patent manures and mulches of animal manures. The best book for your purpose is "Vines and Vine Culture," by the late Archibald F. Barron, price, per post, 5s. 6d. You may obtain it from the publisher, 12, Mitre Court Chambers, Fleet Street, London. The book treats very fully of Vine renovation. It is a book that should be in the hands of every Grape grower in the kingdom. The process of lifting roots may be commenced as soon as the leaves have fallen. When the work is completed, the soil has settled, and young roots have been in process of formation, all of which will soon follow, then hard prune the Vines. February will be a good time for that. Do not attempt to push new growth with the aid of heat until early in April.

Vines and summer production of surface roots.—Will you please tell me the best means to use for the summer production of surface roots and the best manure to apply for their sustenance and multiplication?—R. K. [This is an interesting subject, and we do not think it has received the attention at the hands of gardeners its importance as a factor in the successful cultivation of Grapes entitles it to. The best medium to apply for the encouragement of the growth of these surface roots in summer, according to our long experience, is fresh horse manure mixed with an equal quantity of loam and a slight sprinkling of bone-dust. The whole should be well mixed together before applying to the border, and should be laid over the border in the first instance as soon as the Vines have set a crop of Grapes 2 inches thick when well pressed down. It is astonishing in how short a time this new material will be completely filled with these newly-formed roots, and whenever they are observed clustering thickly on the surface they should be further encouraged to multiply by adding more of the top-dressing to the border. It is by encouraging the multiplication of these roots and by keeping them in good health as long as possible that we help the Vine to carry and mature a heavy crop of Grapes rather than by studying the best manual ingredients to use with water to water the roots with. At the same time water, of course, must be given copiously during summer, and manure water used on each occasion, but it must always be borne in mind that these tiny roots, the creation we may say of a few days or weeks, are extremely sensitive and tender, therefore if we wish to maintain them in good health we must guard them against contact with stimulating manures of a strong nature. We have found the best result to follow the application of manure water from the stable or cowyard in a weak solution and warmed to the same temperature as the vinery. The application of

stimulants may be varied with advantage by watering at one time with water from the stable yard, at another with soot water, at another with guano water, and so on, but always with the stimulants in weak solution to avoid the possibility of injuring these tender surface roots. These roots are of unusual growth, and should be removed each autumn to make way for the annual mulching, which should take place at this time, and also for the repetition of the top-dressing in spring and summer for the encouragement of these summer roots. —Ed.]

Caterpillar (AN OLD SUBSCRIBER).—The caterpillar you found on your Ivy is by no means a full-grown specimen of the caterpillar of the swallow-tailed moth (*Urapteryx sambucaria*), a fine pale yellow moth, with large wings measuring sometimes 2½ inches from tip to tip. The hind wings are produced into a tail-like point. The caterpillars, though common, are never very abundant, and are best destroyed by hand picking. When at rest they resemble a dead twig so closely that at times they are very difficult to find. —G. S. S.

Insects and Cucumbers (HASSOCKS).—This looks very much like the work of woodlice, but you will soon see if you go in the dark with a light, as they will then be at work. Beetles also are quite as troublesome, and do a lot of mischief in a short time, but you may soon get rid of either by using Vall's Beetle-ate, obtained from most seedsmen. This also kills woodlice and ants. The old plan of placing pieces of cut Potato or Carrot in pots attracts them. These are covered lightly with a little hay, and the insects emptied out each morning. Large ones hollowed out are a good bait, the hollowed portion being placed on the soil and the pest shaken out into boiling water each morning. You can obtain Vall's Beetle-ate direct from the maker, 16, Coleman Street, E.C. When your crop is over remove all old soil, dress the brickwork with a strong solution of soluble petroleum, and repaint the crevices to kill all young brood lurking in the soil ready for next season's plants.

Building a greenhouse (T. H. H.).—If the ground on the east side of your garden is free from shade, we should advise you to build your greenhouse there. 1. With regard to style, a plain span-roof structure is far better for plant growing than a more elaborate one, hence we should advise this, with ample top and side ventilation. 2. Though it may be necessary to go down for the foundations, the house itself should be on the ground level, for nothing is gained by sinking it, added to which the removal of the soil is a big item, or, in the event of very heavy rains, water may be troublesome. 3. Span-roof, as in this structure plants grow more symmetrically than in a lean-to. 4. Whichever method of heating is employed the furnace should be outside the structure, for gas or oil lamps inside rarely, if ever, give satisfaction. On the whole we are inclined to favour coal for the purpose, and a good form of boiler may be found in the advertisement pages of THE GARDEN. 5. We should not divide it, for very small structures are particularly liable to extreme fluctuations of temperature. 6. Wood, especially well-seasoned Fitch Pine, is much preferable to iron. In erecting a small house you will find it more economical to consult one of the large horticultural builders, as they keep large quantities of well-seasoned material always in stock.

CATALOGUES RECEIVED.

Bulbs.—Messrs. Sutton and Sons, Reading; Dobbie and Co. Rothesay; Fisher, Son, and Sibray, Limited, Handsworth, near Sheffield; Clibbens, Altrincham, Cheshire; Barr and Sons, King Street, Covent Garden, W.C.; Richard Smith and Co., Worcester; Dickson and Robinson, Manchester; J. R. Pearson and Sons, Chilwell Nurseries, Loughdam, Notts; E. P. Dixon and Sons, Hull; Kent and Brydon, Darlington; H. Cannell and Sons, Swanley, Kent; Frank Dicks and Co., 68, Deansgate, Manchester; John Jeffries and Son, Cirencester; Tuogood and Sons, Southampton; W. Smith and Son, Aberdeen; E. H. Krelage and Son, Haarlem, Holland; Haage and Schmidt, Erfurt; Little and Ballantyne, Carlisle; James Cocker and Sons, Aberdeen; Samson and Co., Kilmarnock; L. Spath, Baumchulenweg, Berlin; and Ant. van Velsen and Co., Haarlem, Holland.

LAW.

LOCAL RATING APPEAL.

MESSRS. WALTER T. WARE, LIMITED, florists, of Englecombe, were assessed to the Poor Rate on an assumed annual value of £370 9s. From this rating they appealed to the Union Assessment Committee, but the committee refused to alter the figure. Notice of appeal to the County Quarter Sessions was then given. Before the hearing came on it was arranged that the matter should be referred to Mr. J. B. Slade (Prothero and Morris), of London, and Mr. W. T. Howes (G. Nichols, Howes, Young, Alder, and Co.), of Bristol, as arbitrators, on behalf of the appellant company, and Mr. H. A. Castle (Castle and Castle), of London, and Mr. C. C. Spackman, of Bath, as arbitrators on behalf of the Union Assessment Committee. These gentlemen could not agree, but appointed Mr. John Alderson Foote, K.C., as umpire. Mr. Castle valued the property for rating purposes at £636. Mr. Foote held several sittings and visited the property, and his award has just been published. Mr. Foote fixes by his award the rateable value of the property at £233 19s. per annum. He also awards that his fee of £24 14s., and also the costs of the reference be paid by the Union Assessment Committee. The case is of considerable importance to nurserymen and owners of horticultural buildings, because the umpire decided that the cost or assumed cost of the buildings could not be taken into consideration for rating purposes, but that the only question was what rent such buildings would fetch. Mr. Isaac Williams was the solicitor for the Union Assessment Committee, and Messrs. Stone, King, Stone, and Thomas, represented Walter T. Ware, Limited. —Bath Herald.

* * The Yearly Subscription to THE GARDEN is: *Inland*, 15s.; *Foreign*, 17s. 6d.

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[SEPTEMBER 19, 1903.]

THE ALPINE HOUSE IN AUTUMN.

IT is not unusual for those who possess an alpine house to leave it empty during the latter part of the year, which is surely to be regretted. Granted that most of the true alpine plants are all the better for summering out of doors, there are a good many autumn-flowering bulbs—to take bulbs alone—which might be better enjoyed during their season of flowering if brought under the shelter of glass. Many of these, like the autumnal Snowflake (*Acis autumnale*), are too small for the ordinary border, where they would be soon overrun by stronger growths, and are only fit for outdoor cultivation in a well-arranged rock garden. Even the later-blooming species run the risk of being overtaken by heavy rainstorms or cut off prematurely by October frosts. It would be just as well at planting time to reserve a portion of any available stock of such bulbs for potting, so that the alpine house, which is the best place for them during their decorative time, may serve its purpose at all seasons. Both for alpine plants and these rarer and smaller bulbs there is nothing more handy than the sort of cold frame which, when first introduced many years ago, was nicknamed "the curate's vinery." Why these frames are not in more constant use in all gardens is a mystery, as they are most convenient in more ways than one. They consist simply of a span roof of glass, with just so much woodwork as will suffice for strength, resting upon a brick or wooden curb. The more lightly these frames can be built the better, as they are then almost as portable as an ordinary hand-light, and any carpenter can put them together in 6-foot lengths for a few shillings. The inside space is filled with plunging material—either coarse sand or grit, cocoanut fibre, or even sifted coal ashes, which will answer every purpose and effectually keep out worms. Nothing can be better for low-growing hardy plants and alpine plants in pots than this form of cold frame, as they can be practically grown out of doors in them, the glass roof being entirely removed in summer unless heavy thunder showers or any other contingency should make it desirable to give protection. In winter a thick mat thrown over the glass may in some cases be an advantage. Half-hardy plants, whose growing time is in the summer, are generally all the better for the open air quarters which such a frame will provide for them.

Amongst the bulbs which would repay the shelter of an alpine house are the autumn-flowering Crocuses, which are not so familiar as those which come in the spring, and must not be confused with the stronger growing Colchicums. Perhaps the most beautiful of all the autumnal Crocuses is the one best known in gardens, *C. speciosus*, with violet-blue pencilled flowers and orange stigmas, but it is seldom met with in perfection. More often a straggler, here or there, greets us on some sunny day, making one long to see it in established colonies. Perhaps it possesses a rambling habit, or, it may be, the gardener's tidying fork disturbs its summer's sleep; anyhow, it does not often remain long in its appointed place. Besides, it is in flower during September and October, so that we are apt, through adverse chances, to get only a passing glimpse of the brightness that might be. These reasons combine to make it a fit subject for a pot or pan, where it may be restrained within due limits, and the lovely flowers allowed to live out their brief life in peace. A whole series of autumn Crocuses, beginning in August with the Caucasian *C. Scharojani*, the flowers of which are orange-yellow, succeed each other through the later months of the year. *C. iridiflorus*, a distinct purple flowered species, ought to come next in order, from September to October, but one cannot be sure of the vagaries of bulbs in the matter of flowering, as earlier or later ripening may alter their season. The Saffron Crocus (*C. sativus*) is as handsome as any, with its purple petals and the conspicuous scarlet stigma, so easily spoilt by weather. It is in flower during October and November, and there are several well-defined varieties. The flowers of *C. cancellatus* should last through November and December, and vary from white to delicately veined lilac. There are other autumn-blooming species, but these may be taken as a fair selection. Most of them show very little leafage at the time of flowering, and a surfacing of Moss on the pots is an improvement. The charming Italian species (*C. Imperati*), with buff and lilac colouring, may be reckoned as a winter flower, being seldom open before New Year's Day. But enough of Crocuses.

In September *Zephyranthes candida* should be in bloom, and its white flowers rising out of the grass-like tufts of leaves are extremely pretty. This species, with some of its kindred, which flower earlier, is called a swamp Lily, on account of its natural habitat being the marshlands of La Plata and Florida, consequently it

can scarcely have too much water during its growing season. *Z. rosea*, an alpine species from the mountains of Cuba, has rose-red flowers, which appear in September and October. The finest of all the zephyr flowers, however, is the half-hardy *Z. carinata*, a very striking plant, with large, bright pink flowers on stalks 6 inches to 9 inches high, which is said to flower naturally in July and August, though it was in great beauty a year or two ago in the Cape house at Kew in March. Six bulbs are not too many for a 5-inch pot, and the compost of sandy loam, which suits it best, should be mixed with a little crushed charcoal to keep it open and sweet, for, like many other bulbs, this species dislikes root disturbance, and should be repotted as seldom as possible. Few people will be disappointed with it, whether it chooses to flower in autumn or spring.

The bright little Irid, *Anomatheca cruenta*, with salmon-coloured flowers spotted with scarlet, makes no show in the garden, yet it is another of the small but satisfactory bulbs which should not be overlooked as a pot plant, the corms being set rather thickly together. *Oxalis*, again, gives us two charming little autumn-flowering species, *O. lobata*, the deep yellow flowers of which are set like gems amongst the vivid green foliage, and *O. versicolor*, white, with rims of rich Cherry-red edging its furled buds. All the bulbs mentioned, with one or two exceptions, like the parti-coloured *Oxalis* just referred to, are quite hardy, and might be safely wintered in the cold frame recommended above. *Z. carinata* would be classed with such easily-grown Cape bulbs as the smaller *Cyrtanthi*, which must be considered half-hardy and treated accordingly, never, of course, being trusted to the open border. Several of these would be specially well suited for an alpine house in autumn. *Cyrtanthus Mackenii* has ivory-white tubular flowers, and is both delicately beautiful and easily increased. At one time I had some hundreds of flowering bulbs of this species, all of which were raised from seed sown as soon as ripe. *C. lutescens*, with much the same habit, has canary yellow flowers, while *C. Macowani* is scarlet—a very pretty trio. With these may be included the pink-flowered *Nerine crispum*, a delicate little beauty which seldom fails to flower, as some of the larger and more gorgeous species sometimes forget to do. An autumn-flowering *Lachenalia* must not be omitted in this connexion (*L. pendula*), for it brightens the dark days of November with

its crimson-rose spikes, and is not half as much grown or known as it should be.

These are but a few of the smaller autumn-flowering bulbs which come to mind, but they are enough to show that there is certainly no good reason why an alpine house should be tenantless during the later months of the year.

MY FRIEND THE FLICKER OAK.

In the course of my pilgrimage through life I have had many friends that were kind, sincere, and trustworthy. I owe them much. It is a pleasure to acknowledge their helpful influence, their restraining counsels, and the healing balsam of their sympathy. Some of these friends were people, some were animals, and one of the most intimate and the oldest is the Flicker Oak at Rose Brake. It has known me all my life. Its great branches sheltered me when, as a small child, I played beneath it with the keys of the Maples, the pens of the Tulip trees, and the acorns of the Oak itself. But though it has stood guard over my home for so many years I have only known it in its extreme old age. It stands near the stone wall that divides the Oak grove on the west from a pasture field beyond. It is of unknown antiquity. It dates back to the time when there were many such giants in the land, when the primeval forest sheltered deer, wild cat, wolf, and panther, and the red man was lord of all.

The height of my lofty friend is 100 feet, and its mighty waist would require a belt, if Oaks wore belts, 20 feet in length. It is a red Oak, and received its name from a colony of flickers, as golden-winged woodpeckers are called in this neighbourhood, which return to their holes in its limbs promptly every April. From the vantage ground of their position high in the air they survey the grove and the surrounding country in undisturbed hilarity. They are genial company for the old Oak. Their gossip, which must be good-natured, to judge from its general tone, and their laughter are the best substitute that I know for the society of amusing and delighting people. They are only birds, but they inspire a feeling of good fellowship in their listener, for which she is grateful.

If one wishes to be taken into the intimate confidence of a great tree, and to get the full enjoyment of its strength and beauty, he should lie on his back on the green sward beneath it, cross his arms under his head by way of pillow, and let the eye climb slowly up the mighty trunk from root to topmost limb. Thus have I lain beneath my friend the Flicker Oak; thus watched the infinitely varied play of light and shade through the dense foliage; thus noted the delicate tracery of the leaves against the blue of the sky, and learned by heart each wrinkle of its rugged bark. This is the way to study the varying characteristics of trees, and to learn many a secret only revealed to the true lovers of Nature, upon whom she has graciously bestowed eyes to see, ears to hear, and a heart to feel her beauty, and her music, and her mystery.

Thus have I spent a summer afternoon moving slowly from trunk to trunk; from Oak to Maple; from Maple to sour Gum; from Gum to Walnut; and then to Ash, to Tulip tree, and back again to the Flicker Oak, most satisfying of all. Sometimes the sun would shine upon me through an opening in the boughs; or a light-hearted vireo warble a lullaby; the orioles whistle plaintively; the friendly squirrels pretend to scold, and scurry away from branch to branch, only to hasten back to peep again, and to drop a tiny acorn on my cheek. The great white clouds sailing far overhead; a distant hawk leisurely cleaving the air on his strong wings; a few drops from a flying scud—all these become stirring incidents, fraught with healing and refreshment to the heat-worn nerves and weary brain of the house-dweller. Should the eyes close into delicious slumber the great tree stands guard over its puny visitor, filling one with

a sense of security, and of being cared for as by a mighty and gentle nurse.

Thus has it chanced to me to be overtaken by a summer shower, and to be awakened by the first cool splash of raindrops upon my brow. The Oak had no need of mackintosh nor umbrella; it was only needful to turn the waterproof side of its varnished leaves uppermost, and stand quietly to take whatever came from Heaven, strong in the security gained by a hundred years of storm and sun. The foliage of the tree protected its sleeping guest as long as possible, but now, with a gentle warning splash, the drops fell more and more quickly; little streams ran down the trunk, following the corrugations in its rough bark; the leaves twinkled merrily as they shed their burden of moisture on my face. Then the sun came out a moment, and the old tree sparkled joyously, like the countenance of a friend that is bringing you welcome news.

The spring day, when the merry roll-call of the flickers is first heard in the grove, is always a happy one. Peals of laughter that resound at short intervals from the Flicker Oak tell of a joyous family reunion. It would seem as if each member of the little colony was recounting his most amusing experiences in foreign lands during the past winter. Again all burst into a triumphant pean of elation, rejoicing in chorus over the defeat of winter. To watch their frolicking fun at such times, one's self screened from observation, is to experience what Mrs. Carlyle would have called "a good joy." They fly, in their clumsy fashion, from limb to limb; they chase each other up and down the branches of the great tree; they dive headlong from the topmost bough to the ground below; they double, they turn somersaults in the air; they scream with excitement and joy in life.

If I might have my wish, or if a fairy godmother would present me with her magic wand, herewith wonders might be accomplished in the twinkling of an eye, a graceful spiral staircase, airy in effect, but strong in reality, should encircle the trunk of my friendly tree, and some 80 feet or 90 feet from the ground I would have an eyrie swung from a limb, and patterned somewhat after the fashion of a hang-bird's nest. And therein, in the company of the flickers and the squirrels, I would spend many a summer night, watched by the tranquil moon and her attendant stars, and cradled in the arms of my comrade tree.

DANSKE DANDRIDGE.

Shepherdstown, Jefferson County, West Virginia.

THE EDITOR'S TABLE.

We invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London.

A PERPETUAL FLOWERING PINK.

The enclosed Pink bloom will give you an idea of the progress now made in our new race of perpetual flowering varieties. The bed is simply a mass of buds and blooms, and has been for months.

—E. LADHAMS, Shirley Nurseries, Southampton.

A sweet-scented rose-lilac flower. Mr. Ladhams is doing good work in getting these beautiful long-flowering Pinks.

CARNATION MRS. L. ARMSTRONG.

Messrs. Watson and Sons, Clontarf Nurseries, Dublin, send a bunch of a new Carnation bearing the above name. The colour is perhaps best described as apricot-salmon; the calyx is remarkably firm. Messrs. Watson write: "We send a few blooms of a new Carnation (Mrs. Laura Arm-

strong), for which we received recently the certificate of the Royal Horticultural Society of Ireland. It was raised by Mr. J. Dowling, gardener to Mrs. L. Armstrong, Carrickmines, from whom we have now purchased the stock. These are, of course, only side flowers (as it is now so late in the season), but will serve to show the unique colour and vigorous constitution of this hardy border Carnation. From the comparatively large stock of the variety in his gardens, Mr. Dowling assures us not one flower had a burst calyx, and the stout erect stems make the blooms valuable for decoration. We have just received intimation that the Glasgow and West of Scotland Horticultural Society's award of merit was granted to this Carnation at their show in Glasgow."

ASTER SINENSIS.

Mr. W. Struignell of Rood Ashton Garden, Trowbridge, Wilts, sends flowers of the beautiful *Aster sinensis* with the following note: "I feel sure you will agree with me that this *Aster* is very decorative, both in the border and as a cut flower. The pink flower comes from the same packet of seed as that of the type. I have sown seed of both for three years, but present prospects are not promising for ripe seed in the open this year. The pink forms are less vigorous in the border, but they are very useful, and what is so good about these *Asters* of both colours is the length of time they remain gay." *A. sinensis* is very beautiful just now in the garden. The flower stands up well and is not destroyed by heavy rains. The pink form has a pure fresh colour, and suggests that a series of colourings in *Aster sinensis* would be a great gain in the garden.

FLOWERS FROM NEWRY.

From Mr. T. Smith, Daisy Hill Nursery, Newry, we have received an interesting gathering of hardy flowers, namely, *Verbascum Lewanika*, with brassy purple flowers; *V. phoeniceum album*, pale sulphur with prominent rich yellow anthers; *Tanacetum odessana*, a very graceful shrub of slender growth; *T. hispida asiatica*, more compact and erect than *T. odessana*, very pretty; *Carex japonica*, a striking plant, with tassel-like heads; *Watsonia Andromeda*, Gladiolus-like flowers of pure white, a lovely thing; *Eriogonum racemosum* has broadly lanceolate leaves, some 2½ inches long by 1½ inches wide, dense beneath, the tiny flowers are white turning to pink with age, and are produced in small clusters; *Potentilla Friedrichseni* has beautiful rich yellow flowers; *Spiraea tomentosa alba* is of stiff habit, with white flowers in erect terminal racemes, the leaves are white beneath, a distinct shrub; *Conium tinctoria elatior* is very free flowering, the yellow and green of flowers and foliage being very effective.

SEEDLING GLADIOLI.

I am sending a few spikes of my seedling Gladioli for your kind criticism. They are cut from beds practically in the open field, and have had no shading, boxing, or protection of any kind. Growers thus in deeply trenched soil, though dwarf in habit, the spikes are large, and the flowers have a stiffness of petal and a purity of colour not always found in plants grown in hot dry walled-in gardens. Not that I despise the shelter of a good high wall on the north and east side of a bed, if the soil is deep and in good tilth, provided it is not too close; in fact, I am working up stock of some of my finest seedlings in my walled-in garden behind the house, and have many plants 5 feet from the ground to the top of the spike. But then the soil has been worked 3 feet deep and well firmed before planting, and herein lies one of the secrets of success with Gladioli. They do seem to dislike loose soil. Spade and fork work needs to be done in the early autumn, and a good dressing of stable manure and steamed bone-flour put in at least 8 inches below the surface. In April a top-dressing of a good reliable chemical fertiliser dusted down the rows and raked in is a great help. W. C. BULL.

Flowers of great beauty, not merely in colouring, but in form and strength of spike. One was a brilliant scarlet, a quite unusual shade, another

heliotrope, while others were salmon and rose. We hope Mr. Bull will continue his interesting work. Ellington Belle, figured in THE GARDEN on the 22nd ult., page 134, was given an award of merit by the floral committee of the Royal Horticultural Society. It was raised by Mr. Bull, and is a flower of rare beauty.

NOTES FROM SCOTLAND.

AMATEURS AT THE EDINBURGH SHOW.

A most promising feature of flower shows in Scotland is the increasing number of amateurs who attend the larger exhibitions. They confine their efforts in the main to cut flowers, but occasionally make incursions into the plant classes too, as well as, but more rarely, into those set apart for fruits, an instance of this occurring at the Edinburgh show, where an amateur captured one or two prizes in the Grape classes. The extent to which they invaded the cut flower section at the show just named was very remarkable, some of the classes being filled entirely by exhibits from these enthusiasts, as happened in the case of Gladioli, and also, I think, of Dahlias; while in others they not only held their ground with gardeners, but beat them in fair fight. This occurred in the case of Sweet Peas, Carnations, double Begonias, Roses, herbaceous flowers, and border flowers, not to mention others. After a careful inspection of the cut flowers, which undoubtedly proved the best section at that exhibition, it was evident that if the exhibits of amateurs had been absent the show of these would have been a very poor one.

WHERE GARDENERS FAIL.

It is clear that the present race of gardeners either have not the time and the means or lack the inclination to cultivate the finer flowers in the manner those of a dozen or twenty years ago did; and this is certainly a retrogression that is to be deplored. The paper protections and the varied paraphernalia that the exhibitor requires to bring and to keep his flowers up to exhibition form are, perhaps, akin to an eyecore in gardens, but one cannot escape from the doubt that the race of young gardeners, being, as they must be, unacquainted with the careful painstaking methods required to produce flowers in the highest state of cultural perfection, will remain incapable, and, perhaps, undesirous of cultivating flowers in any but the most perfunctory manner. The same condition as regards exhibiting obtains at all the large shows, as, for instance, at Dundee, Glasgow, and, I believe, also over the Border at Carlisle; and at Newcastle, where the amateur steps out of the limits imposed in the section existing for his benefit, and boldly and successfully captures from the too easy-going professional the chief prizes offered for cut flowers.

UNNAMED EXHIBITS.

There generally exists a rule at our north country shows that all exhibits shall be correctly named, yet it is a regrettable fact that few exhibitors take the trouble to do so. Nurserymen, of course, find it to their benefit to attach names to what they exhibit, but in the case of private growers there appears to exist a petty fear that naming is a certain method of cheaply educating rivals. The executive of exhibitions, however, ought not to be biased by anything whatever, but should enforce the penalties that the bye-laws of the various associations empower them to use. A show is nothing if not educational, and no matter how careful anyone may be to keep abreast of the times there is no one but on occasion finds himself or herself attracted by some plant or flower with which they have hitherto been unacquainted. The absence of a name in such cases makes one feel it to be almost a crime.

MALCOLM DUNN MEMORIAL.

It was a great pleasure to know that the method adopted by the Scottish Horticultural and the Royal Caledonian Societies to perpetuate the memory of Malcolm Dunn was successful to a degree that surely no one expected in a season like the present.

It will be remembered that these associations invested their proportions of the monies subscribed after his death to provide a medal and a money prize, to be competed for alternately under the auspices of each society. As seen from the report of the show lately held in Edinburgh, it was offered for a collection of Scottish-grown Apples, no fewer than twelve competitors staging for the coveted memorial medal, which was secured by a comparatively unknown Apple grower from East Lothian. Many of the samples—and, indeed, the whole collection—were much below the average, but in the case of those awarded prizes it must be said that they were remarkably good for the season. With the return of our usual kindly summers we shall hope for a really grand competition in this new class. The

TUBEROUS BEGONIA AS AN AUTUMN FLOWER.

is becoming indispensable in our cold climate, which suits it to perfection. No plant presents fewer difficulties in its cultivation, and certainly none is more brilliant in effect, the result being that it is perhaps being overdone, in some gardens Begonias crushing many other good things out of existence. Popular as it is, it is not yet, however, generally recognised that the tuberous Begonia succeeds perfectly without the labour of starting the tubers in pots or boxes as most people do. If the buds are just started the tubers may be safely planted towards the end of May, covering each with 2 inches of soil. The plant is a vegetable gourmand, and previous to planting the ground requires to have incorporated with it a thick dressing of manure at least a year old, or where there is sufficient cow manure dried and rubbed through a half inch sieve that is to be preferred. Sifted pigeon manure is also most effective, and once top growth has freely commenced, surface dressings of this stimulating manure should be applied at least twice in July. Good strains under this treatment produce blooms 5 inches to 6 inches across with a setting of lovely dark foliage. I find there is some diversity of opinion as to the best method of harvesting the tubers, some people cleaning them of every bit of root and soil previous to storing. Personally I prefer to leave a coating of soil to dry on the tubers, which, when laid in heaps in a frame in May, shortly become alive with young roots produced from those preserved over winter. They winter best when a perfectly cool but frost-proof building can be made use of as a store. Hereabouts the cottagers place their Begonia and Dahlia tubers and Gladiolus corms under their beds to winter, where they usually keep in perfect condition, but are apt to start into growth too early.

R. P. B.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

September 29.—Royal Horticultural Society's Fruit and Vegetable Show at Chiswick (three days); Gardeners' Dinner, Holborn Restaurant. Reception, 6.30. Dinner, 7.

October 6.—National Chrysanthemum Society's Exhibition (three days).

October 13.—Royal Horticultural Society's Drill Hall Meeting.

October 14.—East Anglian Horticultural Club Meeting.

October 27.—Royal Horticultural Society's Drill Hall Meeting.

Royal Horticultural Society.—Prize for essay on "Cottage Gardening."—The president and council of this society offer a prize of £10 for the best essay on "Cottage and Allotment Gardening." The essay must not exceed 5,000 words, and all unnecessary technical expressions should be avoided. Notice must be taken of vegetable, fruit, and flower cultivation. The essay must have as an appendix (not included in the 5,000 words) a list of reliable but inexpensive books on the subject which could be recommended to a cottager. The prize essay to become the sole and absolute property of the society. The essays must reach the secretary of

the society, 117, Victoria Street, Westminster, S.W., before January 1, 1904. Each essay must be signed with a motto, and a sealed envelope must be enclosed bearing the same motto on the outside and the writer's name and address inside. These envelopes will not be opened until the judges shall have decided on the motto winning the prize. If any illustrations are added they should be of the simplest and plainest outline description.—W. WILKS, Secretary.

The rights of the rich.—In consequence of the wilful damage to the young trees, the chasing of deer, systematic poaching, and general bad behaviour of trippers, Earl Brownlow has, through his agent, announced that on and after October 1 the beautiful park at Ashridge and the gardens attached to Ashridge House, Herts, will be closed to all public pleasure vans, char-a-bancs, and motor-cars. For many years Earl Brownlow has freely thrown open his grounds, park, and the monument of the Duke of Bridgewater to visitors. Keen regret is felt at his decision, and much indignation is expressed against the trippers.

A substitute for Ivy.—Those who get tired of seeing Ivy-clothed fences, arbours, walls, and houses, and yet require a green covering, should try the Chilean shrub *Ercilla apicata*. It has broadly ovate, rather small leaves, and, like the Ivy, climbs by means of stem-roots. I do not advise anyone to uproot established Ivy plants to make room for *Ercilla*, for they would probably only experience disappointment. *Ercilla apicata* will not cover a building so quickly as Ivy, and therefore is not so valuable, but it is, I believe, quite hardy and evergreen. It has been out of doors in the Chelsea Physic Garden for some years, and growing against a south wall appears to be quite at home, although its progress is rather slow.—A. P. H.

Cassia corymbosa.—Ordinarily grown as a somewhat tender shrub outdoors, few seem to be fully aware of its remarkable decorative qualities. Just now it is in marvellous form and beauty at Cricket St. Thomas, Chard, Somerset, the residence of L. Fry, Esq., one of those charming places which it is a joy to visit in the spring or summer months. On the east front of the mansion projects a glass-roofed portico, some 6 feet wide and about 40 feet long. It has glass ends. At the back are three tall windows, and the intervening spaces of brickwork and ends, four in number, are about 6 feet wide and 14 feet in height. The whole of these brick walls is densely covered with *Cassia* growth, giving literally a mass of yellow bloom of the most attractive description. These four plants are some ten to twelve years old. They grow in boxes 6 feet long, 18 inches wide, and 10 inches deep. They are removed at the close of each autumn to an orangery for shelter. The soil in the boxes is on removal more than half taken away and renewed each spring. These plants merit the highest praise that could be given.—A. D.

Geranium sanguineum var. lancastricense.—Mr. Wolley Dod, in his interesting article on Geraniums, has forgotten to mention the Lancashire variety of *Geranium sanguineum* (*G. lancastricense*). This grows here into large bushy plants, much more compact than *sanguineum*, and not at all straggling. It blooms profusely, and its clear pink flowers make it, in my opinion, quite one of the best of the robust section of this family. It does not run underground at all freely in my garden, and it is one of the rock plants that I should miss most. I have ventured to write this short note, as possibly some of your readers do not know or appreciate this, to my mind, valuable little plant.—SAMUEL TAYLOR, Birkdale, Haverthwaite, via Ulverston.

A champion fruit grower.—In yet another season Mr. J. H. Goodacre, the veteran gardener at Elvaston Castle, Lord Harrington's Derbyshire home, has shown his prowess in the art of fruit growing. At the famous Shrewsbury show in August everyone was talking about the Elvaston fruit, as they had reason to, and at various other important fruit shows the name of Goodacre has been conspicuously among the prize-winners. Not contented with success in his own land, the veteran

crossed the borders and swept the boards at the great show at Edinburgh on the 9th inst. Evidently advancing age has not caused Mr. Goodacre's right hand to lose its cunning, for it seems a reasonable lifetime almost since he first made a name for himself as an exhibitor of fruit. Meteors have sprung up and flashed since Mr. Goodacre made his *début*, but the champion of many fights still remains, apparently evergreen, and certainly the leading figure on the stage.—H.

Echinops macrocephalus.—This is not the correct name of this fine plant (page 163). Professor Cornu gave me the seeds as *Echinops*, a *grand fruits*; and Professor Constantin has informed me lately that as yet the plant has not been named.—CANON ELLACOMBE, *Bilton*.

Mr. W. B. Latham.—The presentation to Mr. Latham of the testimonial from his numerous friends in and near Birmingham has been postponed until October 22. Mr. Owen Thomas, V.M.H., has been invited to preside on that occasion.

The Gardeners' Dinner.—This promises to be a great success; over 360 tickets have already been sent out, and it is anticipated that few will be returned. September 25 is the last date for receiving names, so those who are still undecided should bear this in mind.

Campanula Hendersonii.—I note on page 182 in reference to this Bellflower that some regard it as a "miffy" subject. Such is not my experience in the South of England. I find two year old plants on a low rockery do remarkably well, growing vigorously and flowering in profusion the second season. At the present time I have a plant so treated; it was, when in flower, fully 2 feet in diameter and nearly as high, and quite smothered with its medium-sized bell flowers of a pleasing shade of blue. I look upon this as quite one of the best of *Campanulas*. Plenty of grit, with a little peat, loam, and leaf-soil, with copious supplies of water at the roots during dry weather, appear to be all the special requirements of this *Campanula*.—E. M.

Lilium auratum.—The Hon. and Rev. Grey Neville, Waltham St. Lawrence, Twyford, Berks, writes: "I enclose a photograph of *Lilium auratum*. The bulb is five years old at least, and this year there are thirty-five blooms of unusual size."

United Horticultural Benefit Society.—The annual dinner will be held at the Holborn Restaurant, on Tuesday, October 27 next, at 6.30 p.m. Peter Barr, Esq., V.M.H., has kindly consented to preside on this occasion. The committee hope that all members and friends who can possibly attend will endeavour to do so.

National Rose Society.—At a committee meeting, held on Tuesday last, it was resolved that this society could not accept the invitation of the Royal Horticultural Society to hold their annual exhibition in connexion with the Royal Horticultural Society's Holland House Show. It was felt that the National Rose Society must have an independent show, and a resolution to hold a Temple Rose Show (provided the permission of the Benchers is obtained) was carried. The discussion of the memorial, urging the alteration of the date of the Temple Show, was deferred till the next meeting.

Royal Caledonian Horticultural Society.—At a meeting of the council of this society, held on Saturday, 12th inst., it was unanimously resolved at once to set about preparations for the holding of an International Fruit and Flower Show in Edinburgh, under the auspices of this society, in September, 1905. The last International Show held by the society was in 1891, and proved a great success. Looking to the strides which horticulture has taken in recent years, both at home and abroad, the council anticipate a greater success, and they are desirous to offer premiums, even better than in 1891, the total sum then offered being £1,300. The secretary is Mr. P. Murray Thomson, S.S.C., 5, York Place, Edinburgh.

Cottage garden prizes.—In many districts cottage gardening has been greatly improved by the offering of prizes for the best-kept gardens. When this is continued for several years the effects

are soon noticeable in the greater attractiveness of the cottages, and in the care taken by the occupants of their gardens. About twenty years ago the Countess of Selkirk instituted such competitions on the estate of St. Mary's Isle, Kirkcudbright, when the Earl of Selkirk was alive. Since the Countess removed to Balmae the prizes have been offered as before, and they have now been awarded for this season. Mr. William M'Coull, Stell, was adjudged to have the best-kept beds and borders, and his garden was very well cultivated. Another valuable class is that for the best climbing plants, and here the winner was Mr. J. Graham, Low Newton.—S. A.

Wasps and hornets.—It is some years since these fruit-eating pests were so few in number or so late as this season. The reason for this may possibly be explained in the wet and cold spring and summer interfering with the early nesting of the queens. Whatever may be the cause certainly



LILIAM AURATUM WITH THIRTY-FIVE FLOWERS.

there appears an adjustment of Nature to meet the exigencies of the season. That they do consume a large quantity of the smaller insects harmful to fruit and other trees is well known to most gardeners. Red spider, which is such a dreaded foe of the Peach and Vine, often affords an attractive hunting ground for the wasp. Whether this useful work of the wasp is ample compensation for the great damage done to ripening fruit is doubtful. Even the fewer numbers of the current year are inflicting much inconvenience and loss, and are aided in the task of spoliation by the blue-bottle fly and hornet. True, these latter are present in much fewer numbers than usual, as also are the flies. The mention of hornets brings to mind the varied experience of fruit growers as regards their habits. Some aver that the sound of a hornet on wing acts at once as a scare to wasps feeding on trees bearing ripe fruit, and they at once give place to the uninterrupted possession of the hornet. This may be true, and it can be exactly the opposite, for while some observers find the wasp to

hurriedly escape on the approach of the hornet, I have in the past and during the present season observed that they will feed together on the same tree though not perhaps on the same fruit, and both seemed unconcerned as to the other's company. The hornet has been known to chase and capture wasps, strip them of legs and wings, and carry them off to their nests for food. Exactly the same thing is done with flies by the wasp, and it may be a fortunate coincidence that such warfare is carried on between insects at once so noxious and destructive in the fruit garden. Of all fruits perhaps the Plum and Gooseberry appeal most strongly to the wasp. Now that these fruits are so scarce, Apples, what few sorts there are, engage their attention, and it does not matter what the variety may be they seem attracted most by those of bright colour. Although there are fewer numbers a search should be instituted for nests, destroying them with cyanide or other available remedy; this with a view not only to diminish their present numbers, but also to destroy possible nesting queens for another season. A dearth this year does not imply a similar immunity another season, but the destruction of nests will tend to a reduction if this is followed up now.—W. STRUGNELL.

Physianthus albens.—This climber, a note on which as a greenhouse plant appeared on page 146, is quite hardy in the south-west. It usually flowers in July, but this year I have seen two specimens in full bloom at the end of August. It is a native of Buenos Ayres, and is also known under the names of *Arauja albens* and *A. sericea*. Its creamy-white flowers when borne in profusion have a pretty effect, and the rather leathery, light green foliage is distinct and graceful. It is a quick grower, reaching a height of 30 feet or more in a few years. A large plant growing against a cliff face in the public gardens at Torquay, that spread over a large expanse of perpendicular rock, bore some five years ago over a dozen great oval corrugated seed-pods as large as cricket balls. This plant died, but there is another now in the same place fully 30 feet in height. Up to the present, however, I have seen no sign of seed-pods. I have also met with a plant fruiting in Cornwall.

Malvastrum lateritium.—This plant, of old known as *Malva lateritia*, is but rarely seen in gardens, yet one would imagine that the beauty of its flowers would have led to its general cultivation. An excellent coloured plate of the plant appeared in Vol. XXX., page 52, of THE GARDEN, together with a short description of it, but, with the exception of one short note, no other mention is made of it in the last fifty volumes. A native of South America, introduced into this country in 1840, it might naturally be supposed to be tender, but in "Nicholson's Dictionary of Gardening" it is alluded to as "a prostrate hardy perennial," and certainly it has proved hardy in the south-west. Its flowers, 1 inch to 1½ inches across, are of a soft salmon tint, with carmine-red shading at the base of the petals, and are very pretty. The three-lobed leaves are dark green, slightly rough, and measure 3 inches in length and 2 inches in breadth. A small plant put in two years ago has covered the stones, about 18 inches in height, supporting its bed of soil and is resting on the border below, while its breadth is fully 2 feet. It has been in bloom since the commencement of July, but its flowers are much appreciated by woodlice, and I usually find a dozen or more upon them when I take my nightly rounds with a lantern. *Malvastrum lateritium* is easily raised from cuttings.—S. W. FITZHERBERT.

Ailantus glandulosa in the flower garden.—The Tree of Heaven, as this Chinese introduction is popularly called, is fairly familiar as a tree in gardens, but I had never until last week seen it made use of in the flower garden. In Battersea Park, however, *Ailantus glandulosa* is effectively used both as a central plant in mixed beds, and also as an isolated specimen on the lawn. The plants were fairly tall, some 6 feet or 8 feet, and are evidently cut back every year, just as *Pawlonia imperialis* is treated, so that it is the current season's growth only that makes the display. They are restricted to a single stem, and the growth made in one season when the *Ailantus* is

treated as a cut-back is of astonishing vigour. Although *Pawlonia imperialis* forms a very handsome foliage plant, the *Ailantus* is even more attractive, for its leaves are deeply divided.

Giant Mushrooms.—Last season the Mushrooms in the fields grew to gigantic proportions, and it seems as though we are going to have a repetition of the peculiarity this year. The other day I passed a conveyance returning from the Romney Marsh district in Kent filled with baskets which were laden with immense Mushrooms. The freshness of the specimens proved that they must have grown very quickly, in spite of their size, and, except for their proportions, they seemed to vary little from the medium-sized members of the family that are so prized on the breakfast table. Still big Mushrooms are of no great value, and the demand for them for culinary purposes is not great judging from the huge quantities which grew in the district referred to last year, and which no one took the trouble to pick.—H.

Begonia carminata.—A hybrid member of the fibrous-rooted section of Begonias, this was obtained by fertilising flowers of the South African *B. Dregei* with pollen of the Brazilian *B. coccinea*, a well known and vigorous growing species with sturdy Bamboo-like shoots which attain a height of several feet. Where allowed space for development they will continue to bear their clusters of bright red flowers throughout the summer. In general appearance *B. carminata* bears a much greater resemblance to *B. coccinea* than to its other parent, but the influence of *B. Dregei*, which is quite a low-growing form, has had a considerable dwarfing influence on the progeny, the result being a valuable plant for the warm greenhouse or intermediate structure, where it will often flower from midsummer till autumn. *B. carminata* is naturally bushy, while the drooping flower clusters are bright carmine-pink. The male flowers quickly drop, but the females remain fresh for a considerable time.—H. P.

Bouvardia King of Scarlets.—When a few flowers of this variety opened on some stock plants in the spring I felt rather disappointed with it. However, now that it is flowering on some strong, healthy young plants I find that it deserves all that can be said in its favour. It is certainly a vigorous variety, and the flowers are fully double the size of those of any other scarlet variety, and of a bright clear colour. A curious feature is that the pistil extends above the tube, while in most varieties it reaches only about halfway up the tube. The Bouvardias are very useful winter-flowering plants, and there are none too many varieties, so that any improvement on existing sorts will always be welcome. I think their value would be even more appreciated if a little more care were paid to their requirements. A rich compost and a fair amount of pot room are essential. A temperature of from 50° to 60° Fahr., with plenty of light and air, will ensure free growth. Stopped for the last time about the middle of August they will begin to flower in October and continue to do so well through the winter.—A. HEMSLEY.

Runner Beans.—The trial of these climbing Beans, in considerable variety at Chiswick this year, serves to show how much harder the Dutch or rough runner types are than are those of the so-called French strain or other smooth Beans that also climb. Whilst the growth of the finer strains are first-rate and produce pods in great abundance, such varieties as Sutton's Prize-winner and Best of All, Dobbie's Champion, Carter's Elephant (white), the old scarlet, the old white, the Painted Lady, and others are doing remarkably well. But all the other section seem to have suffered very much from lack of warmth, and have very poor crops. Even the Dwarf Kidney Beans are not nearly so good as they were two years since, when we had a warm summer. Vegetable Marrows, which at one time promised to make a capital trial, later suffered severely. They seldom do well anywhere on the flat if the season be cold and wet. As a rule they are never better than when grown on raised mounds.

German Plums.—Because of the dearth of Plums at home this year the markets and shops have

been full of German Plums, there being a good crop in Germany. These fruits are naturally very acceptable to bewildered housewives, who, unable to obtain other fruit for domestic uses, have gladly availed themselves of such as Germany can send us. But the sample is, according to our insular fruit standard, but a sorry one. Generally it is such as we should call second crop or fourth-rate Victorias. Still, they sell at 2½d. per pound, which no doubt represents to the vendors a very good profit. The only good sample Plums seem to be those from California, but these are very dear, 8d. to 10d. per pound. Whilst we do not appraise Plums to the same extent that we do Apples as a crop, still it is very evident that Plums are in their season in great demand, and they have been this year very much missed. We may well hope that next year may see an abundant crop. To that end it is needful that we have a dry and warm autumn, otherwise wood will be soft and sappy, and buds deficient in strength.—A. D.

Dodder on Heather and Gorse.—With reference to the enquiry in your issue of the 5th inst. I enclose specimens of both Heather and Gorse covered with Dodder, which is quite plentiful on Chobham Common near this house.—G. EDEN, *Red Cottage, Long Cross, Surrey.*

With reference to the question whether Dodder is common on the Heather, Hooker's "Student's Flora" gives Furze, Thyme, and Ling as the plants which are mostly attacked by *Cuscuta Epithymum*. As a proof that it is common enough on the Heather in some localities I may state that in the early part of August it was particularly abundant on Black Hill, one of the highest points in East Devon, lying back inland between Exmouth and Budleigh Salterton. On this elevated position, from whence a large portion of the county of Devon and some parts of Somerset are visible on the one hand, and a stretch of sea on the other from Portland Bill almost to Berry Head, is a plateau of some extent covered chiefly with Heather, which has been a glorious sight for some time, the colour of which has been considerably heightened by the abundant admixture of the slender red stems of the Dodder, covering patches of many square yards in extent. I may say that Black Hill is a favourite resort of people in this part of the county, and belongs to the Hon. Mark Rolle, whose seat at Bickton lies almost at the foot of the hill on the Sidmouth side.—JOHN R. JACKSON, *Claremont, Lympstone, Devon.*

The Chiswick Vegetable show.—Way to get there.—Visitors coming to the Chiswick show from off the South-Eastern, Chatham and Dover, or Brighton Railways, should travel from the respective terminuses to Chiswick by the Metropolitan District Railway to Hammer-smith, thence by electric tram to Turnham Green Church, or by Ealing trains to Acton Green Station. Those coming from Liverpool Street, King's Cross, St. Pancras, Euston, Great Central, and Paddington terminuses should travel by the Metropolitan Railway, from the nearest stations, to Hammer-smith, and thence by electric tram. Those coming from Central London should travel by the Tube Railway to Shepherd's Bush, thence also by electric tram. Turnham Green Church is close to the gardens. Visitors coming by South-Western Railway main line should change at Clapham Junction, thence by loop line train to Kew Bridge, and thence by electric tram. Those coming from off the Windsor, Reading, and Thames Valley lines should change at Richmond, thence by frequent trains to Gunnersbury Station. All bringing heavy parcels can obtain cabs at Kew Bridge, Gunnersbury, and Turnham Green Stations. Visitors to the show purposing to attend the gardeners' dinner at the Holborn Restaurant should take tram from Turnham Green Church to Shepherd's Bush, thence by Tube Railway to British Museum Station.

Lantana delicatissima.—This is quite a distinct and pretty shade among Lantanas, and one that all those who use these plants for the purpose of bedding-out should make a note of. In fact, it seems to be only in public parks and gardens that Lantanas (and also many other plants that might be mentioned) are much used for summer

flower-beds, yet for the mixed beds that are now so popular they are among the most useful subjects. In one of the London parks Lantanas are very freely used in the handsome beds of mixed flowering plants, and invariably with good effect. *Lantana delicatissima* produces heads of flowers that are primrose colour in the centre, but pale purple towards the margin. Whether all the flowers open a primrose colour and become purple as they age, or whether some are primrose and some are purple from their opening I was not able to determine, but I imagine the former to be the case. A bed of this Lantana, especially when the plants are some 4 feet to 5 feet high, and well flowered from top to bottom, is very bright and attractive. Another Lantana that is unusually pretty and exceptionally suitable for bedding is the variety *Ne Plus Ultra*. The heads of flowers are pale yellow in the centre, this being surrounded by rose, a most effective combination. The foliage, too, is much better than usual, being sturdy and a rich dark green colour. The flowers are freely produced, so that plants bearing plenty of foliage and flowers make quite a good display in a bed without the addition of any other plant as a ground covering. We recently saw a bed filled solely with this Lantana, except for an edging of *Viola Blue Bell*. Another effective bed to be seen in the London parks contains large plants of *Heliotrope* var. *President Garfield*, while a yellow Lantana, the plants not more than 2 feet high, covers the spaces between. The association of blue and yellow is almost always pleasing, and this instance is no exception.

The Himalayan Strawberry. Among the many interesting things in the Chelsea Physic Gardens I recently came across some plants of the Himalayan Strawberry (*Fragaria indica*). My reason for drawing attention to it is not because of its large size or rich flavour, for it possesses neither, although when ripe the fruits are not at all unpleasant, but for its curious method of fruiting. The small fruits are borne singly at the end of stalks some 2 inches or 3 inches long, and are almost covered by the abnormally large segments of the calyx. The bright red fruit, partly visible inside its green covering, is curiously pretty. There appear to be two varieties of this Strawberry, one producing perfect fruits, while with the other, instead of the pistils producing fruits in the usual way, they develop leaves, and the fruit (or what is understood as the fruit), instead of ripening and becoming edible, remains green and foliaceous.—A. P. H.

THE FLOWER GARDEN.

A PLEA FOR THE DOUBLE HOLLYHOCK.

I CAN have no possible objection to anyone writing up the single Hollyhock; what I object to is the exaltation of the single forms at the expense of the double varieties. Charles Dickens has told us in one of his books that with some persons it is a perverted delight to pull deserving things down by setting undeserving things up, and this is, unfortunately, a common failing with some of the writers for the horticultural press. They, for reasons of their own, disparage the show Dahlia, the double Hollyhock, the large Chrysanthemums, and other flowers; apparently quite oblivious of the fact that to thousands they are a source of enormous interest and pleasure. There is garden ground enough in the wide world to grow everyone's fancies; the floral iconoclast is a nuisance in it. When recently at Trowbridge I walked along a pleasant roadway in the town, with houses on either side, having in many cases pleasant and well-kept fore-court gardens. In most of them I saw single Hollyhocks, but in no case could I count more than five expanded flowers at one time,

and those at the top of a long spike of seed-pods; the average was four. The business of the single Hollyhock is to produce seeds; the bees find in the flowers the thing they seek; the visit of the bee is speedy decay to the flower. In the case of the double Hollyhock—and especially so in the instance of the full double varieties—little seed is produced, but there is obtained for garden decoration a spike of bloom which in the case of well-cultivated plants is 2 feet and more in length. The spike is formed of many well-developed flowers, and as a consequence of their doubleness they are lasting; they remain in beauty for a considerable time. It is difficult to name a more stately plant than the double Hollyhock for the back of a border of hardy flowers. The single Hollyhock allows of but little scope for improvement; cultivation leads to the doubling of the blossoms. The single Hollyhock is of practically no value as a commercial item; neither plants nor seeds are of value. The double Hollyhock is an important commercial item; a particular variety which may be in demand can be increased only by means of some method of propagation, and employment is thereby given to many. The seed of a fine strain of double Hollyhocks is always of value, and the supply invariably considerably below the demand.

There is no floricultural progress in going back to an inferior type. It has recently been done in the case of the Chinese Primrose and the Cineraria; it was but commencing where a beginning was made many years ago. Nearly a century ago Charles Baron took the single Hollyhock in hand and led it on by stages of doubling until Messrs. Paul, Roake, Chater, Parsons, and others produced the magnificent double varieties of thirty years ago. Were the named double Hollyhocks of the present day blotted out of existence it would take years of toil to bring them up again to their present standard. The single Hollyhock, like the poor, will always be with us; it is a weed in the garden, seeding itself freely and never lacking progeny. The double Hollyhock must not be thrown aside.

R. DEAN.

PRUNING CLEMATIS MONTANA.

In reading up the back numbers of THE GARDEN after some weeks' absence from home, I came across, in an article entitled "Creepers and Climbers for all," the statement respecting *Clematis montana*, that "if we happen to meet with a very old one that has been allowed to wander unchecked all over the place, and is untidy at the bottom, it is quite useless to attempt to cut and prune it into shape. Such treatment would be certain to destroy; it is better to take it away bodily and put in a new one." I should much like to know if your practical readers endorse this assertion. Certainly my own experience is directly opposed to it. Rather over two years ago my opinion was asked as to what should be done to an old *Clematis montana*, with a stem nearly as thick as a man's leg, that was clambering over a balcony, and was bare of leaves for some feet from the ground. I had on previous occasions cut down two with good results, and suggested this treatment in the case mentioned. The owner feared that this would kill the plant, and suggested rooting it up and planting a young one in its place. I, however, carried my point on pointing out that if the *Clematis* died another could be easily planted. I sawed the stem through about a foot from the ground, and in a few weeks buds appeared, which developed into vigorous shoots, that now spread over a considerable portion of the balcony, and are covered with foliage to the base. A young plant would not have made half as much growth in the same time. If their appearance was unsightly, I should have no hesitation in cutting down old plants of *Clematis montana* in order to induce vigorous growth, and I should have little

fear as to the result, providing the operation was carried out in the spring just as the sap was beginning to rise.

It has been stated by a lady who is a recognised authority on gardening matters that *Clematis montana* is not a long-lived plant. It is a question what is to be considered long life. I, however, know of an example twenty-five years of age and still in good health.

S. W. F.

WHITE TUFTED PANSIES.

THE report of the Viola Conference, held at Edgbaston Botanical Gardens, Birmingham, in August, 1894, is interesting reading in view of what has taken place since then in Pansy development. On that occasion several matters regarding the Viola were considered, and useful and instructive papers were read and discussed. The late Mr. William Dean read a short paper on "Large-flowered Varieties as Bedding Plants," and the best varieties for the purpose according to colour, the best white Violas (tufted Pansies) were then described in detail, and it is interesting to recall those which were at that time regarded as the best. Countess of Hopetoun was placed first, and deservedly so, as it was then distinctly better than the majority of those in general cultivation. This variety and Dr. Stuart's Sylvia were thought well of as rayless flowers and pure selfs, also for their excellent habit. Marchioness of Tweeddale was another pretty sort, but this had a spreading, or what we should now consider a straggling growth. Countess of Wharnccliffe (also known as Lord Fitzgerald), another snow-white sort, of erect and sturdy habit and a good bedder, was also in beauty. In addition to those already described, the following varieties of earlier origin were alluded to: Croft-house, Lady Dundonald, Mrs. Gray, Mrs. Kinmont, Mrs. McDonald, and Victoria.

My reason for specially referring to the varieties that found favour in 1894 is that those interested in the tufted Pansies may be the better able to appreciate the great advance made since then. To what extent are the varieties enumerated in the list prepared in 1894 cultivated at the present time? Countess of Hopetoun, Sylvia, Marchioness of Tweeddale, Countess of Wharnccliffe, and Lady Dundonald are still grown. Of these five, preference should be given to the first two, and, if it came to a question of deciding which is the better of the two for general purposes, Sylvia should certainly be given the preference. But each of the foregoing is completely eclipsed by those of more recent introduction. Beautiful though the older ones undoubtedly were, and, comparatively speaking, are still, they will not compare with what the fancy specialists have provided to-day. The newer sorts in most instances are infinitely superior both in flower and growth, and, except in a few isolated cases, their constitution is good and their flowering time most protracted. Rayless flowers, too, have improved in form and substance, and an excellent trait in the character of the best plants is the erect and sturdy footstalks, which also carry the flowers well above the foliage.

Each season sees some advance, and it is now possible to obtain plants for almost any position—not the ordinary method of bedding only—where a free and continuous display of blossoms is desired. The following white sorts are the best that have come under my observation, and most of them I have seen planted in large breadths:

Seagull.—A pretty flower and a good rayless self; good habit and free flowering.

Snowdrop.—Introduced for the first time during last spring. The flowers are of the purest white, very large, with a neat yellow eye, and rayless. Each flower has a long footstalk, and the plant is free flowering.

White Beauty.—Introduced in 1899. This is a charming plant, with beautiful green foliage; it has a creeping habit of growth; a very hardy sort; pure white, with a faint suffusion of yellow in the eye, and rayless.

Suan.—Very pretty; to be distributed in the ensuing autumn or spring season by Mr. William Sydenham of Tamworth. The flowers are large, with a well-defined eye of an orange colour, rayless,

and of good substance. The plant is free flowering and robust.

White Empress (syn. *Blanche*).—This is a splendid tufted Pansy, and has been greatly admired all through the present wet summer. The flowers are large and circular, and freely developed; excellent constitution. The flowers have been described as pure white, but they are more of a pleasing creamy white, having a yellow eye and rayless. Introduced in 1896.

Cream King.—A 1901 introduction and a very fine flower—large, circular, and rayless. This variety well represents the cream-coloured sort. The habit is not so good as it might be, but, given a good open position, the display is very fine, especially in the early summer.

Duchess of York.—This is more of an exhibition than a bedding variety, and is usually well shown in the North. The plant is free flowering, but its habit is not so good as that of many sorts. The flowers are neatly pencilled or rayed.

Devonshire Cream.—Undoubtedly one of the freest tufted Pansies in cultivation. A good breadth or group of this variety gives one a proper idea of what these plants are capable of producing. As its name implies, the plant develops rayless cream-coloured blossoms in great profusion.

Elaine (1900).—Another free-flowering sort, very distinct; the flowers large, of the purest white, with a yellow centre, slightly rayed; most effective plant for the hardy border. There is a seedling which is being distributed this season under the name of Faultless Elaine. This is a rayless flower.

La Vierge.—Introduced in 1901. A charming white rayless flower, with a neat yellow eye.

Mrs. A. D. Parker (1899).—This variety has done well since its introduction, and is a good white self; very free.

Mrs. J. Donnelly.—Grown in almost any position this plant will succeed. It is a most persistent and continuous bloomer, free flowering and robust, of good habit, and with chaste bluish white flowers.

D. B. CRAWF.

GERANIUMS FOR BEDDING.

THE season is now at hand to commence propagating these popular bedding plants. The past season has been an unusually wet one, and growth is in consequence very sappy. The cuttings when taken off should be laid on a dry bench for a couple of days to allow the sap to dry a little. The general method of rooting Geranium cuttings is to insert several round the sides of a 4-inch pot or boxes. In establishments where large quantities are grown it is an excellent plan to strike them in beds under glass; these should be prepared early in August. To do this, place round the intended beds boards 1 foot deep, at the bottom place a layer of rough leaf-soil, and then fill up with a mixture composed of two parts loam and one part sand and leaf-soil. Make the beds firm with a brick, and then give them a thorough watering. Put the cuttings 3 inches apart, and 4 inches between the rows, making them firm. Syringe them lightly on bright days until rooted, and then cease; maintain a temperature of 45° at night and 50° by day. By November they should be sufficiently rooted to admit of their being potted into 4½-inch pots, and then placed on ashes. Keep the points of the shoots and flower-spikes picked out so as to make the plants bushy. When the pots are full of roots apply a little patent manure to help them. Cease stopping the shoots after the end of March, and afford plenty of air on all favourable occasions to harden the plants before they are placed out of doors prior to bedding them out.

The tricolor class of Geranium requires a somewhat different treatment to that advised for the green leaved varieties, and they also need more careful propagating. Insert the cuttings round the sides of a 4-inch or 4½-inch pot. If the soil is at all dry give the plants a good watering. This will suffice for some time, as the plants require to be kept on the dry side; this class of Geranium is more apt to damp off than the others, and great care is necessary in watering. Place them on a shelf so that they will receive all the available light and sun.

If it is possible to do so keep them in a temperature rather warmer than the others. Pot off singly into 4-inch pots as soon as rooted. Continue to keep on the dry side, and use weak soot water when water is applied. As regards the hardening off, treat them as advised for the other varieties.

JOHN R. MORGAN.

Waddesdon Gardens, Aylesbury, Bucks.

ANEMONES FROM SEEDS.

IN the issue of THE GARDEN for the 15th ult. a very interesting contribution appears from Ed. Heinrich, Bavaria, concerning the raising of certain Anemones from seeds. It is the more valuable to the amateur, because the right way has been obtained partly by previous failures. Notwithstanding this, one can only question whether it was prudent to cast away valuable pots of seedlings on the mere theory of the possibility of their having damped off. A very superficial examination would have revealed the error and likewise the tubers. In this latter connexion it is perhaps to be regretted that the tiny round corm or bulb-like excrescence that constitutes the first season's development in all tuberous sorts did not accompany the illustration on page 116, for then the information would have been complete, and of great value to the amateur. Minus this, however, it may be stated for the general guidance of all amateurs interested in bulbous plants that the season of growth, and of leaf growth above ground in particular—which, in reality, is what is regarded as growth by a large number—is an exceedingly short one. This is particularly noticeable in Narcissus, for instance, of which the first season's above-ground growth consists almost invariably of a tiny erect green blade that may bear strong resemblance to a single 3-inch or 4-inch blade, more or less, of a quite small Spring Onion. The duration of this above ground may be six weeks or three months. The longer the first season's growth is in sight so much larger in proportion will be the tiny bulbs below.

In Liliums, too, the above-ground duration is equally short, and generally with bulbous seedlings a brief term is the rule. These facts cannot be too widely known, as valuable seedlings may be saved for a future generation if not for the present race. So, too, with Anemones of the tuberous section. In these the growth in the first season may be confined entirely to the Cotyledons, and it is surprising how quickly some of these disappear altogether, while others are retained for quite four months. But whether short or long, it will be found on examination that a small roundish-ovoid brownish corm is attached to the Cotyledonous stem. Doubtless many have watched again and again for a further break from the central axis of the seed leaves, but, so far as my experience goes, it does not appear. Usually in the tuberous section only the Cotyledons are seen in the first year. If the seedlings start away well the second or trifoliate leaf growth may appear from the corm; but this is not general, and the Cotyledon, having served its function of first growth, perishes. In such herbaceous species, as the one in the illustration on page 116, the leaf development of the first season is of necessity a different thing, as a crown bud—as in Anthericum—has to be formed, and with this a basal root or two therefrom, thus making the complete seedling plant.

With some seedlings of the tuberous Anemone this year I have noticed a peculiarity I do not remember to have seen hitherto, which consists in not a few instances of no Cotyledons having been produced at all, but in place of this the trifoliate growth, as shown on the left-hand side of your illustration. I was very curious about this, and first regarded it as a second growth from the seedling corm. This view was entirely dispelled,

however, upon my lifting one or two for examination. I mentioned the circumstance to Mr. J. G. Baker at the Drill Hall, when that gentleman informed me he had no recollection of such a peculiarity. It was, however, no isolated example, and the lifted specimens were quite barren of any other form of leaf growth. The best way of raising Anemone seedlings in quantity is to sow seeds in prepared soil in the open ground, and sufficiently thin that a full season's growth may develop. Even with rare sorts, and where pans or boxes are used, the seeds may always be sown thinly with considerable advantage to the young plants.

Hampton Hill.

E. H. JENKINS.

OLD BEDS OF CARNATIONS FOR CUT FLOWERS.

MANY, I have no doubt, who carry out the following practice in regard to their Carnations,



A VASE OF SHIRLEY POPPY FLOWERS.

must find the usefulness of it. Instead of clearing away all plants out of beds after securing layers, I find it is a good practice to leave some of the plants in beds for two years. These I do not take layers from the first season after planting, but invariably take off all that are required the following year. It is astonishing what sheaves of flowers one can have off such sorts as the old Clove, Redbraes, &c., and I believe there are other varieties which would give quite as satisfactory results grown in the same way. The contrast to the few scraps one can have from one year old plants is very marked. The system here described by our correspondent is well worthy of being practised, and in the case of those varieties that do not produce many layers the first season it should prove particularly valuable. There are some varieties of Carnations that we can hardly have too many of, and many will doubtless be glad to know how to increase them.

J. M. B.

NOTES ON HARDY PLANTS

SALVIA GLUTINOSA.

IN the garden of the Countess of Selkirk at Balmae, Kirkcudbright, there are a number of interesting herbaceous plants, many seldom seen and little known. At the Dumfries show the other day a number of plants from Balmae were exhibited, among them being some finely-grown spikes of *Salvia glutinosa*, a plant I grow here, but not nearly so well as it appears to be cultivated in the garden of the Countess of Selkirk. It is not showy in the garden, but when grown as at Balmae, under trees, it is more interesting than in the ordinary border. The Balmae flowers were much larger, and the lips of the flowers much broader, than with me. The colour is a pale yellow, but just such a tint as would show up better under trees than elsewhere; while the fact that it will thrive in such a position gives it a value to many. It grows about 3 feet high, and is really a very old plant in gardens, though hardly ever met with now. Its old popular name is Jupiter's Distaff.

S. ARNOTT.

SHIRLEY POPPIES.

THE photograph of the Shirley Poppies, sent to us by Mr. W. Jesper, reminds us of the grace and delicacy of colouring of a good selection, and it is interesting to know how this famous race originated. They are the result of the Rev. W. Wilks' patient work in selection, and we give the story in his own words: "In 1880 I noticed, in a waste corner of my garden abutting on the fields, a patch of the common wild field Poppy (*Papaver Rhæas*), one solitary flower of which had a very narrow edge of white. This one flower I marked and saved the seed of it alone. Next year, out of perhaps 200 plants, I had four or five on which all the flowers were edged. The best of these were marked and the seed saved, and so for several years, the flowers all the while getting a larger infusion of white to tone down the red until they arrived at quite pale pink, and one plant absolutely pure white. I then set myself to change the black central portions of the flowers from black to yellow or white, and have at last fixed a strain with petals varying in colour from the brightest scarlet to pure white, with all shades of pink between and all varieties of flakes and edged flowers also, but all having yellow or white stamens, anthers, and pollen, and a white base. . . . My ideal is to get a yellow *P. Rhæas*, and I have already obtained many distinct shades of salmon. The Shirley Poppies have thus been obtained simply by selection and elimination. By 'selection' I mean the saving seed only from selected flowers, and by 'elimination' the instant and total eradication of any plant that bears inferior flowers. . . . Let it be noticed that the Shirley Poppies (1) are single; (2) always have a white base, with (3) yellow or white stamens, anthers, or pollen; (4) never have the smallest particle of black about them.

Double Poppies and Poppies with black centres may be greatly admired, but they are not Shirley Poppies. It is rather interesting to reflect that the gardens of the whole world—rich man's and poor man's alike—are to-day furnished with Poppies which are the direct descendants of one single capsule of seed raised in the garden of Shirley Vicarage so lately as August, 1880. Poppy seed should be sown in the autumn or in the spring, sowing very thinly because the seed is small, and thinning out the seedlings to fully 6 inches apart. Fine flowers in abundance and over a long season can never be expected unless the seed is sown thinly, the seedlings well thinned out, and the

dying flowers picked off to prevent seed forming and weakening the plant."

POLYGONUM AFFINE.

WHILE we have all been complaining of too much rain, and of the consequent destruction of the beauty of many flowers, there have been many plants which have positively revelled in the heavy rainfall. It is worth while to observe these, for their behaviour in a wet season tells us that a little more moisture than they usually receive is necessary at the roots. Among these wet-weather plants particularly noticeable is the Himalayan *Polygonum affine*, or *Brunonis*, as it is often

Dumfriesshire and Galloway Horticultural Society by Mr. M'Guffog, gardener to the Countess of Selkirk, at Balmae, Kirkcudbright, I observed with interest a good bunch of the white flowers of *Napaea dioica*, a tall plant hardly ever seen in gardens. It is not a new plant, as it was figured in the *Botanical Magazine* (table 2913) under the name of *Sida Napaea*, the *Sidas* being popularly known as the Indian Mallows, and belonging to the natural order Malvaceæ. The plant is now transferred to the genus *Napaea*, of which it now appears to be the only member, if we are to follow the "Index Kewensis." It is of tall growth, generally from 4 feet to 10 feet, and at Balmae it is about 9 feet high, the climate being a moist and

west to Minnesota and Iowa. While it is not what one would call a first-class plant, it is most useful in its proper place.

Carsethorn, by Dumfries, N.B. S. ARNOTT.

LEWISIA TWEEDYI.

IN THE GARDEN of the 11th July there is a life-like illustration of this beautiful Californian plant. At the same time particulars were requested concerning its general cultivation. This, so far as I am aware, means few, if any, obstacles to the gardener, and the plant may be well grown in a mixture of very gritty loam, leaf-mould, and finely sifted manure. This, indeed, is the mixture in



THE TERRACE GARDEN AT IMPNEY HALL, THE RESIDENCE OF DR. CORBETT.

called in gardens. During the twenty years or so in which I have grown it in my garden it has never been so fine as at present, a fact I attribute to the moist summer. Not only is it freer than usual, but it has finer and better coloured spikes. It is particularly pleasing with its many spikes of flowers, which come out flesh-coloured, or nearly so, and pass off almost crimson. Its fault is its spreading habit of growth, but that can be overcome.

NAPÆA DIOICA.

IN examining a very interesting stand of hardy herbaceous flowers set up at the recent show of the

genial one, close to the sea. The foliage is very handsome, being large, palmate, and pointed and toothed. It reminds one slightly of that of *Rodgersia podophylla*, but without its bronzy hue. The tall stems are surmounted by large umbellate corymbs of small white flowers with the general appearance of the plants of the Mallow order. Some may not consider *Napaea dioica* choice enough for the border, but for a wild garden it is excellent, having just the effect desired among the larger plants used in this delightful phase of gardening. It is a native of moist soil, and in the United States, where it flowers about July, extends from Southern Pennsylvania to Virginia,

which my original plant was grown, and not this alone, but a lovely colony of the plant in the Kew rock garden was in quite an ordinary mixture, and the plants grew away apace. Apart from the question of soil, the *Lewisia* evidently prefers a quite sunny spot, as do not a few others inhabiting the same region. Given this and a good depth of loam there is, so far, little difficulty in securing a good growth. The plant flowers profusely, and the yellowy buff shade with the delicate shading of pale rose is as beautiful a combination as it is rare. It is, indeed, a lovely blend of colours. The foliage is decidedly more persistent than in other species, and of course very distinct.

Its somewhat succulent nature suggests a plant suited to a position hot and dry, or at least comparatively so. My plant grew extremely well without this latter condition. Thus it may be gathered that from the cultivator's point of view there is little to fear. The real trouble, so far as the hardy plant garden is concerned, is that this beautiful species is not hardy. When the plant received acknowledgment from the Royal Horticultural Society at least one authority on hardy plants stated with some emphasis that it was "quite hardy." I regret I was unable to endorse that statement. But regarding my original plant, it was left more or less exposed, save for the shelter afforded by a greenhouse wall. Even here, and which in certain instances may be regarded good shelter, the plant was killed quite early in the winter. I know also that many plants at Kew perished, and from the complete failure in a somewhat mild winter I should not be surprised to find it unable to withstand any severe long-continued frost, even when protected in a cold frame. In a mild winter it may be safe, and all such plants are better if plunged in rather coarse coal ashes and kept studiously dry for a long season. So distinct and good a plant if generally hardy would have been a great gain to first-rate alpine. In much-favoured localities and in a dry position in the alpine wall the plant may yet pass the winter in safety.

E. H. JENKINS.

NOTABLE GARDENS.

IMPNEY HALL, DROITWICH.

AMONG the notable gardens of Worcestershire those surrounding Impney Hall take high place. Though neither laying claim to stateliness nor grandeur, they are attractive, and also contain much that is of interest. Of the terrace garden in front of the Hall we are able to give an illustration, which, although it shows well the design of the beds and arrangement of the plants, conveys no idea of their bright and varied colouring. We have seen few bits of formal gardening wherein plants were more tastefully grouped; the brilliantly coloured flowers, although they predominate, do not make the display one blaze of garish colouring; they are judiciously softened by a free planting among them of plants whose chief attraction is their foliage. The wall that bounds the terrace garden is covered with Ivy, Ampelopsis, Clematis, Honeysuckle, Crimson Rambler and other Roses, and there are groups here and there of shrubs, all of which, flowers and greenery, serve to form an admirable enclosure to the gay parterre. Beyond the terrace there is a delightful view across the lake and park to the wooded hill beyond. The park should, perhaps, be called garden, for during recent years it has assumed more and more the aspect of a garden, and many of the characteristics of a park have disappeared. The lake sides are planted with moisture-loving plants and groups and small plantations of flowering and other shrubs are numerous, while the forest trees, of which numbers remain, serve to show that park has given place to garden.

The Rose garden is a prominent feature at Impney, although it is some distance away from the Hall and terrace gardens. Herbaceous flowers and the Rose garden are on two sides of the kitchen garden respectively, and are a pleasant change from the Potato or Horseradish plots, or even rubbish heaps, that often greet the eye when one passes outside the kitchen garden walls. Roses in great variety are grown, and although we saw splendid beds of Caroline Testout, Marquise de Salisbury, Grüss an Tepitz, and numerous other free-flowering sorts, few were more attractive than the hedges of dwarf Polyantha Roses. Mr. Jordan uses them extensively as an edging to Rose beds and borders. Herbaceous perennials made a gorgeous display, although some of them had suffered a good deal from the effects of the bad

weather. Nothing, however, had done worse than the Peonies, and from what we have seen this year in other parts of the country the failure of Peonies is general.

There is little to say of the fruit crops out of doors at Impney, for like those in almost every garden they are poor; hardy fruits are conspicuous by their absence. With regard to fruit grown under glass, however, it is different. Mr. Jordan is one of the most successful exhibitors of fruit at the leading provincial shows, invariably carrying away a good share of the honours. Grapes are well grown at Impney, and one variety we noted as being unusually good, namely, Diamond Jubilee. Although this variety may not have so fine a flavour as some, it is a good exhibition Grape when well cultivated and perfectly finished. Mr. Jordan grows numerous varieties of Grapes, and considering the fact that many are grown together in the same house the results are remarkably good. Pine culture in pots also is a feature in Impney Gardens, and some really good fruits of the Queen variety are produced. Between the flavour of a home-grown Pine-apple and an imported one there is no comparison, and it seems regrettable that owners of gardens should have allowed Pine-apple culture almost to disappear. Melons, too, are among the fruits that are well grown at Impney. Although an expert fruit grower, Mr. Jordan is no less successful in the culture of flowering plants. Without exaggeration we may say that rarely, if ever, have we seen finer Cyclamen than here. They were from seed sown in August, 1902, and if one may judge from their vigorous appearance a few weeks ago the display of flower will be no less remarkable next spring than the foliage is now. Chironia ixifera is a plant rather largely grown by Mr. Jordan, who finds it most useful for decorative purposes, especially for the decoration of the dinner table.

Of the many interesting features at Impney, perhaps most notable of all is the winter garden or fernery; it is probably unique. For many years it was an open dell wherein grew Ferns, Foxgloves, Lilies, Bluebells, and numerous other shade-loving plants, and even in that condition was one of the prettiest bits in the gardens. The late Mr. John Corbett, however—knowing how suitable a site it was for the purpose—completely transformed it into a winter garden. All the English flowers were uprooted, and huge masses of rock imported and arranged so as to form what is really a rock garden, and the whole covered with a glass roof. A stream of water meanders through the centre of the erstwhile dell, spanned here by a rustic bridge or there made passable by "crossing stones," while Tree Ferns, as Dicksonia, Cyathea, give an almost tropical aspect to the scene, and smaller Ferns, as Pteris, Adiantum, Nephrolepis, &c., together with other plants of pleasing foliage, Dracænas, Palms,



TREE FERNS IN THE WINTER GARDEN AT IMPNEY.

Grevillea and Aspidistra, clothe the rocks, or are planted among the groundwork of greenery that consists of Lycopodium.

H. H. T.

TREES AND SHRUBS.

SOME LESSER-KNOWN JAPAN TREES AND SHRUBS.

(Continued from page 184.)

THOUGH in actual size of flower China and Japan have sent us no Magnolia to compare with the American Magnolia macrophylla, no one who has seen M. hypoleuca on its wooded hill slopes will easily forget the impression. It is one of the most striking of all trees in a country where the beauty of the inmates of the forests is not surpassed in any other part of the world. The long, spreading branches on trunks, often 80 feet to 100 feet high, the leaves 12 inches to 15 inches in length and 6 inches to 8 inches broad, of the palest green, the large creamy flowers 6 inches across when expanded, stamens with scarlet filaments, and in autumn the brilliant crimson cones of fruit, 6 inches to 8 inches in height, standing well above the leaves, surprise all who see them.

This tree requires age to flower, but should do so in this country in from fifteen to twenty years after planting. It will probably prove more adaptable than its near allies, the American M. macrophylla and M. tripetala. M. Kobus is

common in Japan, and makes a handsome symmetrical tree in England. *M. stellata*, *M. s. rosea*, *M. Watsoni*, and *M. parviflora* are well known.

M. salicifolia, new to cultivation, has not yet flowered in Europe, nor are its blossoms known to botanists. My own seed, collected on Mount Hakkoda, failed to germinate; but, thanks to the kindness of Professor Sargent, my firm now has a promising young tree, which it is hoped will flower in a few years' time. Though common in the district in which it is found, the position is not the most easily accessible, which, no doubt, accounts for the delay in introducing it to English gardens.

The large and interesting *Cercidiphyllum japonicum*, a member of the Magnolia family, does not seem to thrive with us as well as it does in New England where flourishing specimens are to be seen. Its bright pink spring foliage is attractive, and in its native forests the massive divided trunks give the whole landscape a peculiar appearance.

Nearly allied to the Magnolias are *Euptelea polyandra*, which has so far failed to establish itself, and that curious genus *Trochodendron*, containing but one species, *T. aralioides*. This is an

an excellent hedge plant. It certainly is impenetrable, and has the additional advantage of bearing in late spring a profusion of large white flowers a month before the leaves appear.

JAMES H. VEITCH, F.L.S.

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(To be continued.)

COLUTEAS.

THE Coluteas form a small genus of hardy Leguminosae, natives of South Europe and Asia Minor. They are distinct-looking shrubs, and can be grown where practically nothing else will thrive, but they are not so popular or so often seen as one might suppose. There are only four properly recognised species belonging to Colutea, but there are a multiplicity of names based on slight differences, often so much so that they can hardly be distinguished by those responsible for them. Their cultivation is simple, an annual cutting back each spring while the plants are young being all the pruning required.

C. cruenta.—This is a native of the East, and is 6 feet or so in height. The leaflets are usually seven to nine, and are more glaucous than those of *C. arborescens*. The flowers are bright reddish yellow or light brown colour, borne in axillary spikes of from three to five flowers on each. The seed-pod does not differ materially from that of *C. arborescens*.

C. istria (*C. halepica* or *haleppica*).—This is rather scarce at present in this country, but when well grown it is one of the handsomest of the Coluteas. It is a native of Asia Minor, and makes an upright shrub 4 feet to 6 feet in height. The stems are rather slender, and the pinnate leaves have smaller and more numerous leaflets than the preceding species. The leaves are of a bright glaucous hue; it is a pretty plant even when not in bloom. The flowers are large, yellow in colour, but are not produced in the same season that the plants are cut down. It is not so strong as the other Coluteas, and requires rather better treatment.

C. melanocalyx (*C. longialata*).—This is a native of Asia Minor, somewhat resembling *C. arborescens*, but is readily distinguished by the longer wings, extending beyond the keel of the flower and the dark hairs on the calyx and flower-stems.

C. media.—This is a name that has been given to a form that is probably not in cultivation now. From its description—orange yellow flowers and glaucous leaves—it is in all probability a hybrid between *C. arborescens* and *C. cruenta*, which has occurred in a batch of seedlings at some time.

Coluteas should never be planted singly, isolated specimens never produce the same effect that bold masses do.

Bagshot, Surrey.

J. CLARK.

THE ROSE GARDEN.

ROSE MARJORIE.

WITH reference to our illustration of this Rose, which was made from a photograph taken in the gardens of Hewell Grange, Mr. A. A. Pettiger, the head gardener there, writes: "Marjorie is a beautiful Hybrid Tea, white with blush centre, of medium height, a capital bedder, and equally as good as a cut flower." We saw it recently at Hewell, and were much attracted by the good qualities Rose Marjorie possesses. It is seldom met with in gardens, and appears to deserve extended culture.

AUTUMN-FLOWERING SINGLE ROSES.

If anyone asked me which was the best of all single Roses that flower in the autumn I should name

Bardou Job. It is a lovely flower. The huge petals, black shading, with a vivid crimson-scarlet ground, combined with an almost climbing habit and autumnal flowering, are excellent points, when we remember that the collection of autumn-flowering single Roses is limited. Some of the sorts I shall name below are not strictly single Roses, there being generally two rows of petals, in some cases three, but their appearance is so much like that of a single Rose that they may well be grouped here. Doubtless by this time

Irish Beauty and *Irish Glory* are well known. They are two of our best autumn-flowering single Roses; in fact, belonging as they do to the Tea Roses they are practically perpetual flowering. The first-named has large flowers of the palest white, being nearly 5 inches across. The large trusses are very showy when several flowers are open at one time, each blossom being held up well by a firm foot-stalk. The rich array of golden anthers is an additional charm, and, moreover, the foliage upon the young shoots is quite ruby-red, contrasting well with the pure white flowers. The



BED OF HYBRID TEA ROSE MARJORIE IN THE GARDENS AT HEWELL GRANGE, REDDITCH.

evergreen tree with rich dark glossy leaves 4 inches to 5 inches in length, attaining in Japan a height of 20 feet to 25 feet; extremely rare in a wild state, though much cultivated. In this country it is a handsome evergreen tree, which on more than one occasion has flowered and fruited freely.

Amongst other trees and shrubs undoubtedly hardy in England which Japan has sent us and which repay the careful planter are *Stuartia pseudo-camellia*, nearly allied to the *Stuartia* of America, but more suitable for our climate, and *Casalpinia japonica*, which flowered outside in England for the first time in 1887, though the genus is, generally speaking, a tropical one.

Clerodendron trichotomum, found all through the Far East and long known to science, is also a striking tree, the large, almost tropical foliage of established specimens being literally hidden every second summer by scores of large umbels of carmine and white flowers.

Amongst the Witch Hazels the distinct *Hamelia mollis* is now recognised as the most beautiful of the genus, the flowers being larger and more richly coloured than those of the other species.

The thorny *Citrus trifoliata* may yet prove to be

This will not prevent their blooming, the flowers, instead of opening in June, being a week or two later, and the plants will last six weeks or more in full flower. Almost any soil will do for them, a hot dry bank suiting them admirably, though they are equally at home in a better and moister position. Full exposure to the sun is, however, essential to their well-being. If they are planted in a dry spot they should have one or two good waterings for the first year, but when the long tough roots have struck down deeply they can take care of themselves. Propagation is effected by seeds, which are produced in considerable quantities, and germinate very rapidly.

C. arborescens (the Bladder Senna).—This shrub attains a height of 8 feet to 10 feet, or even more, with stout erect branches having a roughened spotted bark. The pinnate leaves consist of from nine to eleven nearly oval leaflets of a soft pleasing green. The flowers are yellow, borne in spikes of from six to eight, and freely produced from the axils of the leaves. The seeds are contained in a large, reddish-coloured, bladder-like pod, containing two rows of flattened seeds, which are black when ripe.

plant is vigorous yet not quite so strong as Irish Glory. This latter is as free and vigorous as Mme. Lambard; in fact, it looks like a great single blossom of that well-known sort. The long buds before they unfold are very beautiful. How well this Rose can be utilised for table decoration has been well exemplified at the Rose shows the last two or three years. The single

Indica Miss Willmott has a beauty of its own; the copper-coloured flowers suggest at once *L'ideal* in single form. A really pretty bed could be formed by planting *Bardou Job* against pillars as a centre, then a circle of *Irish Glory*, and another of *Irish Beauty*, with an outer ring of *Miss Willmott*. The

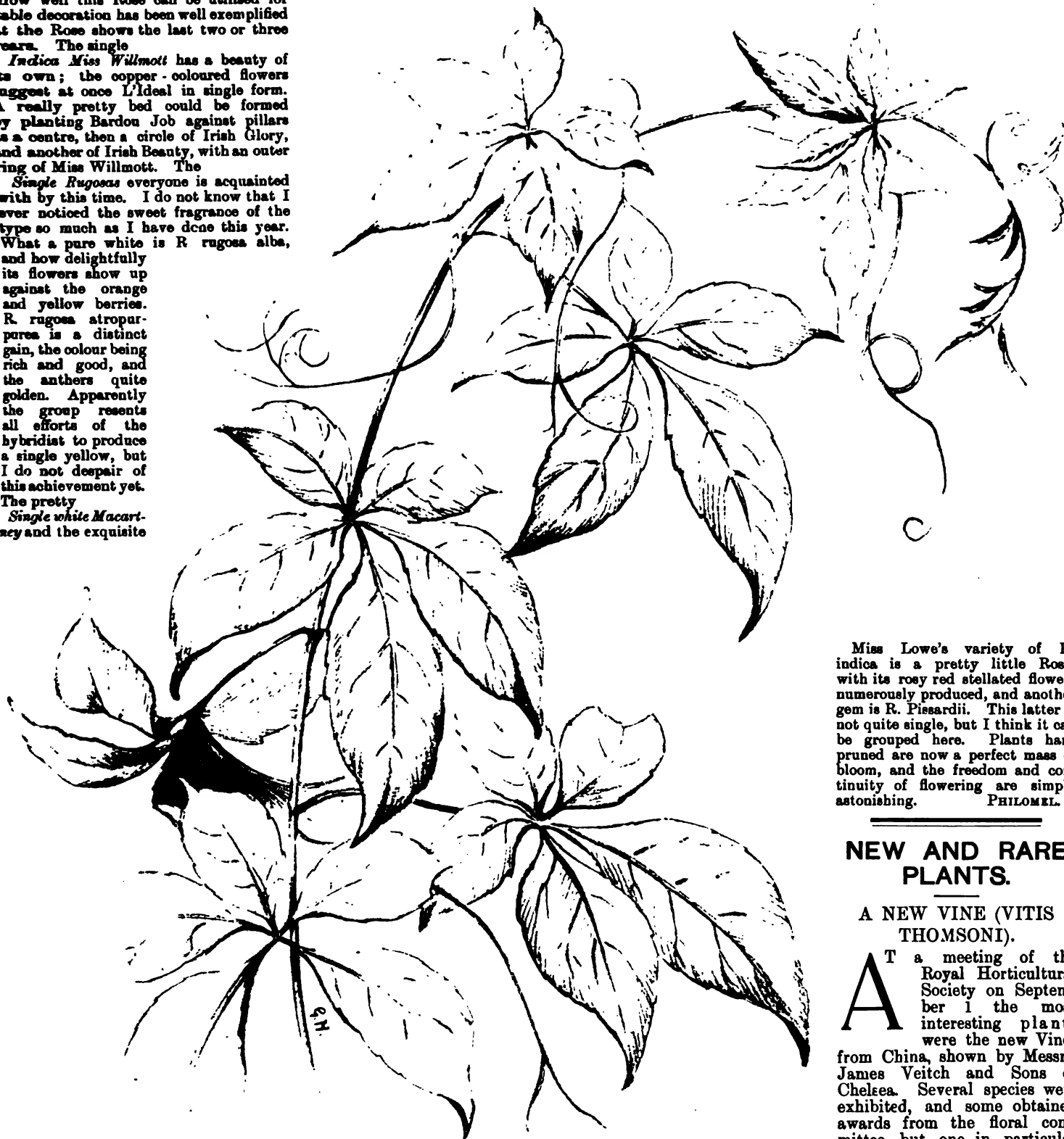
Single Rugosa everyone is acquainted with by this time. I do not know that I ever noticed the sweet fragrance of the type so much as I have done this year. What a pure white is *R. rugosa alba*, and how delightfully its flowers show up against the orange and yellow berries. *R. rugosa atropurpurea* is a distinct gain, the colour being rich and good, and the anthers quite golden. Apparently the group resents all efforts of the hybridist to produce a single yellow, but I do not despair of this achievement yet. The pretty

Single white Macartney and the exquisite

Paul's Single White. I think it is not known nearly so much as it deserves to be.

There seems to be a possibility of many additions to the autumn-flowering single Tea and Hybrid

lovers of this charming group. Though our collection of varieties has attained to such enormous dimensions, I imagine some really striking colours in single Tea Roses would be warmly welcomed.



THE NEW VINE (VITIS THOMSONI) FROM CHINA.

(Shown by Messrs. J. Veitch and Sons, Chelsea, at a recent meeting of the Royal Horticultural Society, and given a first-class certificate.)

R. Berberisfolia Hardii are too tender to commend as garden Roses, but they well deserve a sunny nook on the rockery or on a wall in front of a greenhouse. There is a fine pillar and arch Rose to be found in

Tea Roses. Anyone who has raised seedling Roses in quantity knows very well that a large percentage are single-flowered, and the delightful colours which thoughtful crossing can produce open up possibilities that are likely to astonish the

become as popular in gardens as any Vine of the present day. It received a first-class certificate. The leaves are very rich in colour, with quite a reddish shade on the upper

Miss Lowe's variety of *R. indica* is a pretty little Rose, with its rosy red stellated flowers numerous produced, and another gem is *R. Pissardii*. This latter is not quite single, but I think it can be grouped here. Plants hard pruned are now a perfect mass of bloom, and the freedom and continuity of flowering are simply astonishing. PHILOMEL.

NEW AND RARE PLANTS.

A NEW VINE (VITIS THOMSONI).

AT a meeting of the Royal Horticultural Society on September 1 the most interesting plants were the new Vines from China, shown by Messrs. James Veitch and Sons of Chelsea. Several species were exhibited, and some obtained awards from the floral committee, but one in particular was very distinct. This we have illustrated; it is *V. Thomsoni*, and in the future will probably



HERBACEOUS CALCEOLARIAS AND HYDRANGEAS IN THE GARDEN OF MR. J. HORDERN, HUDDERSFIELD.

surface and violet-purple underneath, while they are five-lobed, and, as our illustration suggests, the whole plant is graceful and very beautiful. We know little of these lovely Vines from China so far, but there is no doubt about their hardness.

BOOKS.

Packing and Selling Fruit and Vegetables.—Early in the year 1902 the Worshipful Company of Fruiterers, desiring to assist small cultivators in improving their methods of dealing with garden produce, offered a gold medal for the best essay on "Gathering, Packing, and Profitably Disposing of Home-grown Fruit and Vegetables," and Mr. Lewis Castle, Ridgmont, Bedfordshire, was the successful essayist. The present volume of some 130 pages is a reprint of Mr. Castle's work, although some paragraphs, omitted to bring the essay within the regulation respecting the number of words, have now been included. This book is intended primarily to assist cottagers and small holders of land, and by them will, without doubt, be found of great service. The first chapter, "Cottagers' Prospects: How to Succeed," will be read with interest. Here the author says: "A market can always be found for the best produce. It is the second and third rate fruits or vegetables which most severely tax the ingenuity of the grower to sell at an advantage. Every means must be adopted that is within the reach of the cultivator to bring his crops to the highest condition." And it is this that Mr. Castle endeavours to impress upon his readers throughout the book, and at the same time describing how the best results may be obtained. The essentials in fruit and vegetable culture are treated upon at some length, although the greater part of the work deals with packing and selling, as the title indicates. The author mentions that suitable packages for conveying produce are very necessary, but expensive to buy, he therefore advises cottagers to make their own. "Cottagers and others who are engaging in fruit and vegetable growing with the object of adding

to their means should at least endeavour to make all the bags, boxes, and baskets they are likely to require." Directions are given for the making of these various articles. "Baskets and Basket Making" is the title of a most useful chapter. As a packing material Mr. Castle recommends wood wool, and few will disagree with him. The work of gathering fruits receives recognition, as it properly should, for unless fruit is carefully gathered its market value is much lessened. "Grading and Packing Fruit and Vegetables," "Selling Garden Produce," "Storing Fruit and Vegetables," "Preserving and Drying Fruit and Vegetables," and some valuable remarks about "Markets" are other chapters included. That Mr. Castle has written a most interesting and valuable essay upon "Packing and Selling Fruit and Vegetables" is acknowledged by the gold medal of a Fruiterers' Company being awarded to it by a committee of experts, and we need only say that it is full of valuable information—that gained by a long experience.

THE INDOOR GARDEN.

HERBACEOUS CALCEOLARIAS AND HYDRANGEAS.

MR. BRAY, the grower of the Calceolarias represented in the illustration, writes: "Seed is sown the last week in May thinly in seed pans in a cold frame with north aspect. The soil is composed entirely of leaf-mould, with a sprinkling of sand on top, and the pan is well drained. Water the soil two hours before sowing. Everything must be in readiness before the packet of seed is opened, as the slightest puff of wind will sow it where it is not wanted. After sowing sprinkle a thin layer of sand over the seed, cover with glass, and turn every morning to dry off the moisture. When big enough to handle prick off into other pans 2 inches apart, having a little loam mixed with the previous soil. When selecting from a large number of seedlings preference should not be given to the sturdiest, as these bear yellow flowers. The weakly-looking ones are those which will yield the most charming colours. The next shift should be into 3-inch pots, taking a good mass of soil with

roots; keep in the cold frame, and sink the pots to the rims in ashes. When well established nip out the points of the leading shoots then side ones will break. Repot into 5-inch pots, and winter in these in a cold house on a shelf close to the glass. In February dew over early in the afternoon with a fine syringe, watching sharply for green-fly. When root-bound pot into larger-sized pots, and as soon as each break has formed two leaves pinch out the lead. This will encourage frequent breaking. About the latter end of March plants will probably be ready for their last shift into 8-inch pots. The soil for these should be of the following mixture: 1 bushel of yellow loam, 3 bushels of local loam, $\frac{1}{2}$ bushel of leaf-mould, 6-inch pot of bone-meal, 8-inch pot of fine Nut charcoal, and 5-inch pot of soot. Mix freely with sand to make the soil porous. While the flowers are developing give liquid manure. This is made with a handful of Thompson's Vine and Plant Manure in a gallon of water; stir it up well. This should be given about twice a week, stopping it when the flowers are out, when only clean water should be given. Attention should then be paid to staking and tying, and give a free circulation of air both top and bottom. During bright sun shade the flowers.

The Hydrangeas are grown in a similar mixture to that for Calceolarias, but with a 6-inch pot of borings of iron mixed with a barrowful of soil. Plants are ripened outside after blooming, taking care to lay down the pots on their sides to prevent too much watering. Remove the plants into a very cool house at Christmas. When showing signs of growth shake out and repot into clean and larger pots and make the soil firm. Good drainage is necessary. Feed with liquid cow manure when the plants are showing bloom about twice a week. This should be discontinued and clean water given when the flowers are fully open."

NURSERY GARDENS.

MESSRS. RICHARD SMITH AND CO., WORCESTER.

IN Messrs. Richard Smith and Co.'s Nursery at Worcester there is something of interest to be seen all the year round, and we recently noticed many good plants in flower in the herbaceous garden, which is under the charge of Mr. Horsman, who has got together an excellent collection of hardy plants. He seems to have succeeded in eliminating "doubtful and weedy" kinds, and to have retained only those which are of real value in the garden. The beds and borders of herbaceous plants made a very brilliant display on the occasion of our visit, and we had an opportunity of seeing some really good border plants well grown.

Delphinium sibiricum plenum, a double-flowered Larkspur of the richest blue, a very striking flower, was first pointed out, and close by we saw a group of *Petunia Countess of Ellesmere*, the most distinct we have met with for a long time, the flowers are rich rosy pink, very telling, and they look particularly well when the plants are grown in baskets or window boxes. Of the Sea Hollies, *Eryngium olivierianum* was most attractive. We saw the true *E. amethystinum*, which has small heads of flower produced in October. *E. alpinum*, with large violet-blue heads of flower, and *E. Bourgatti*, with variegated foliage, were also noticed. *Santolina viridis* (the American Sage) was splendid in the rock garden, a large mass of grey foliage and yellow flowers. *Convolvulus Oneorum*, supposed by some not to be hardy, braves the winter at Worcester, and even now its grey leaves are not unattractive.

Veronica salicifolia is a good plant, bearing drooping racemes of bluish-coloured flowers, and deserves to be noted. *Tropeolum speciosum* was perfectly happy in a hedge of *Arbor-vitæ*, the brilliant flowers were festooning the south side of the hedge, although, curiously enough, the plants were planted on the north side. The *Platycodons* were making a brave show, and so too was *Rudbeckia maxima*, with glaucous foliage and

* "Packing and Selling Fruit and Vegetables." By R. Lewis Castle, F.R.H.S. W. H. and L. Collingridge. Price 1s.

handsome, yellow, deep coned flowers. *Leucanthemum laciniatum robinsonianum* is a tall striking plant with large white flowers. *Potentilla formosa*, with pretty rose-coloured flowers, *P. f. flammea*, rich scarlet, and *P. hopwoodiana*, rich pink and cream, are three delightful Cinquefoils.

Rudbeckia hirta, with bright yellow black-centred flowers, is valuable on account of its early flowering, it is quite a month earlier than *R. speciosum*. *Prunella webbiana* (true) is a plant rarely seen, it bears strong spikes of rose purple flowers very freely. Other plants worthy of note are: *Digitalis ferruginea*, with pale buff blooms, and probably would prove very effective among brightly coloured flowers; *Dianthus giganteus*, *Hemerocallis thunbergiana*, pale yellow, late; *Lychnis vespertina plena*, double white; *Paliurus aculeata* (Christ's Thorn), and *Sedum himalaensis*. Among Bamboos, of which Messrs. Smith have a splendid collection, we noticed *A. undinaria marliacea*, *A. Hindi*, *Phyllostachys heterocycla*, *P. sulphurea*, with the best yellow stem of any, *P. Castillonis*, and *P. macrostema*, from North America.

THE WOODLAND.

THE BURR OAK (*Quercus macrocarpa*) succeeds well in very different situations, and I think it might with great advantage be more frequently planted than it is at present. The leaves constitute the greatest beauty of the tree, they being so large and neat, deep green above and almost silvery beneath, the latter colour being shown off to advantage when they are tossed about in a storm. There is no special treatment that I know of wanted by the Burr Oak, but it likes plenty of room for development, the twigs seeming to die off when the tree is crowded or overhung by others of larger growth. Like many others of the American Oaks, the one under notice is worthy of being extensively planted.

PRUNING BROKEN BRANCHES.—It often strikes me that this department of forest management does not receive the attention it deserves. If there is anything more than another that tends to make a park and the woods of an estate look well, it is paying strict attention to the pruning and clearing of all wind-twisted and dead and dying branches. But this is not all, for by carefully and judiciously pruning off broken and dead branches from a tree its value both now and hereafter is certainly increased. Allow the ragged wound caused by a branch being split or torn from a tree by the wind to remain without dressing the edges and so permitting the ingress of water, and very soon decay will set in and the stem of the tree become damaged in consequence. Dead branches and knots are quite as injurious, for the wood of the tree growing around these causes the planks and boarding cut from such to be almost worthless for building, &c. The knot soon gets loose and falls out once the boards have begun to season. By coating the amputated branch or wound with tar or paint, great benefit will be derived by preventing still further the taking in of water.

ORNAMENTAL WILLOWS.—Clumps here and there of some of the more ornamental Willows have a decided effect in adding beauty to the outskirts of plantations, or even to the sides and margins of woodland drives. What can be finer than a mass of the golden Willow (*Salix aurea*), especially when seen with the afternoon sun upon it? The red-twigged Willow is perhaps not one whit behind it, while the still better-known Bedford Willow is another of particular interest and beauty. Of the most brilliant orange colour are the branches of *S. bofordiana*, and a few specimens on any estate are a great acquisition. The Royal Willow

(*S. regalis*), too, is one of particular beauty, of very free growth, and, like many of the family, by no means exacting as to the quality of soil in which it is planted. But there are others as well as those mentioned that for ornament are well worthy of being planted. Such an one is the vermilion-barked *S. sanguinea*, probably the most distinct of the whole family. The orange-red barked *S. britzensis* should not be omitted. Its bark is very beautiful in winter.

THE WINGED ELM (*Ulmus alata*), although of small value as a timber tree, in this country at least, is yet one of the best species for withstanding prolonged storms and the effects of a fully exposed situation at high altitudes. It has been found to do well high up on some of the English hills, and where from the almost constant wind the Larch looked stunted and one-sided, and could raise its head but a few feet above the wall which surrounded one of the plantations to which I refer. The other trees that were doing well were the Austrian and Corsican Pines, the Alder, and the Sycamore. Moreover, the Winged Elm is so distinct and interesting that it well deserves to be cultivated in the park, for the curious wing-like appendage with which the branches are provided renders the tree unlike any other of my acquaintance. It is not of giant growth—a neat, regularly-branched specimen of about 35 feet to 40 feet high. Free of growth, even in gravel, neat in foliage, and curious in aspect, this Elm is worthy of being noted for the coming planting season.

SEEDLING AZALEAS AND RHODODENDRONS are readily procured in plenty by making artificial beds of peat in any shady, quiet corner. The beds need not be deep, say 6 inches of peat, and this not broken up too fine, but left as big as marbles or Potatoes, or, better still, cut the peat in turves and lay these side by side. Sow the seeds as soon as ripe, and place a few branches over to shade the bed. The seeds will soon germinate, and by the second year the plants will be ready for lining out. They are very useful for planting in various parts of the wild garden, even beneath other trees they do well, and would often give beauty to a spot that otherwise might remain bare and unsightly.

CORRESPONDENCE.

(The Editor is not responsible for the opinion expressed by correspondents.)

DAHLIA FANCIES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was at the National Dahlia show on the 1st inst., and spent some time there. The most beautiful exhibit in the show and the one that attracted the most attention was undoubtedly the stand of eighteen bunches of new Cactus Dahlias set up by Messrs. Stredwick of St. Leonards. Here were some lovely things, almost all new varieties, shown for the first time, graceful in shape, delicate in colour; in a word, beautiful. To decry these and evince a preference for the older coarse, flat-petalled decorative varieties, that look as though they had been sat upon, is surely to display a sort of rigid conservatism, which in gardening, at any rate, I had hoped we had got rid of. Your correspondent laments the decline of the older sorts, because they were superior to the new ones for gardening effect. No doubt they were in a way, in the same way as a double Sunflower excels an Iris, but I know which I admire most as a flower. And even here I do not know that I can admit your correspondent is correct, for I have half a dozen tubs of one of the newer Cactus Dahlias standing on my drive now which are as fine a sight as any lover of garden effects can wish for, a mass of scarlet bloom, every flower visible, and distinctly outlined against the foliage. None of the sorts mentioned could beat it for effect, and certainly not for grace and elegance. I have some of the newer Cactus Dahlias on the table in front of me as I write—Mrs. Edward Mawley, H. J. Jones, Ringdove, Alpha, Vesta, and the pure white and graceful Eva, and how anyone with half an eye for beauty can give these lovely things a second place to the old decorative sorts absolutely passes my comprehension.

F. H. C.
[The point we wished to emphasise was that a show Dahlia is not necessarily a good garden flower, and in striving to obtain a starry form the merits of the variety as a flower for the garden



TREE AND SHRUB BY WATERSIDE, WITH WATER LILY GROUP NEAR.
(From a photograph by Miss Willmott.)

may be overlooked. Much has been accomplished in raising Cactus Dahlias, which throw their flowers well above the foliage and give the same effect as the varieties mentioned in our leader, but there is still room for improvement.—Ed.]

SINGLE HOLLYHOCKS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Single-flowered Hollyhocks are quite useless as border plants to me; they are far too fleeting, and have a distinctly poor appearance as compared to the 12-foot or more plants of good double-flowering varieties, so stately standing at the back of a tall border clothed with formal or non-formal blossoms as the case may be. It is not necessary to adhere too strictly to formal blooms of even double-flowered varieties, as there are abundance of others nowadays. If I wish for single flowers of the Hollyhock in a dwarf form, as suggested by "A. D.," I grow *Lavatera*, which are much handsomer, free-flowering, and lasting. In my experience single Hollyhocks are more liable to disease than doubles. I gave this section a thorough trial during the last two years, and have come to the conclusion that the ground could be much better occupied. E. M.

WHITE PHLOXES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—With all deference to the views of "E. H. J.," regarding Mrs. E. H. Jenkins as a white Phlox, I think it is now quite superseded by *Tapis Blanc*, *Mathilde Srao*, and *Amazone*. The two former do not grow more than 15 inches high, yet carry enormous spikes of the purest white. The pipe themselves are 1½ inches in diameter. *Amazone* and *Sylphide*, too, I regard as better than Mrs. Jenkins; both have larger flowers, and *Amazone* especially is purer in its colouring. The flower-heads, too, are a trifle more compact; the habit of growth is all that could be desired, reaching 3 feet, and producing any number of stiff growths, each one clothed with deep green leaves. *Virgo Marie*, although an old variety as Phloxes go, is a charming sort where late flower-heads are required. With me it is now opening its flowers at a height of 4 feet, of the purest white, and especially compact. This variety deserves extended growth where late flowers are desired. E. M.

THE GLADSTONE PEA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This Pea is certainly an acquisition, but as showing the variation in height on different soils, I may say that here in a row of 23 yards the lowest portions are 5 feet 6 inches and the highest 7 feet. The seed was sown on May 19, and I have just gathered the first dish. Autocrat, sown on May 30, is also doing well. Last year from this variety, sown on May 22, I was picking nice Peas in November. *Ne Plus Ultra* grows too tall altogether, so I have given it up. Veitch's Perfection is just podding, and, I think, will not exceed 5 feet in height. Peas generally have done splendidly this year, and promise a continuous supply to, at any rate, the end of October. C. H. HOWES.
The Gardens, Birr Castle, King's County.

MALMAISON CARNATIONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—My attention has been called to a correspondence in *THE GARDEN* re Malmaison Carnations, and I venture to suggest that those who do not appreciate these flowers have probably not succeeded in their culture. My experience is that for size, scent, brilliancy of colour, and for their lasting quality, either as sprays to wear or for decoration of rooms, they are unequalled. Added to this, when properly treated the plants flower twice in the year, and by judicious management in layering young plants and repotting in succession, a good gardener produces blooms all the year round, which he would find difficult to do with other flowers or Orchids. With very limited accommodation in one double span greenhouse my gardener has provided

me with Malmaisons to wear every day in the year of the finest quality in size, form, and colour, and the question of quantity depends alone on the space available. For general purposes I recommend Lord Rosebery, Ivanhoe, Princess of Wales, and the old-fashioned blush Malmaison.

FANNY TWEEDMOUTH.

Guisachan, Beaulieu, Inverness-shire.

DISEASE AMONG POTATOES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It cannot be denied that the present outlook for the winter as regards Potatoes becomes more serious day by day, the extent of decay in those already lifted and placed in store being quite alarming. That really good garden Potato *Snowdrop* is a great offender, quite half the bulk having already to be thrown out, and the length of life that remains to the other half is a matter of doubtful speculation. Under such circumstances and prospects Potatoes are better for the present left undug, so that the decayed ones can be more easily separated from the good. Allowed to remain only a few days unturned in the heap they soon become wet and soft, and their assortment is then offensive. Late varieties and stocks have not yet been proved, their fates are deferred in hopeful anticipation that they may turn out better than the main-crop supply. Early sorts, such as *Sharpe's Victor* and *Ringleader*, lifted before the disease scourge became so prevalent, remain free from taint, and a later lifting of Sir J. Llewelyn shows but little trace of disease. *Cosmopolitan*, another good early cropping sort, is free, or almost entirely free, some lifted early and others more recently being good. *Beauty of Hebron* would, like *Snowdrop*, be sure to be early affected. *Windsor Castle*, another good main-crop Potato, has, so far as I can find, suffered severely, even on ground not much manured. The stalks of all Potatoes have gone off badly with leaf disease, even late ones like *Up-to-Date*, which, it is feared, will ultimately develop decayed tubers. It will be necessary, indeed advisable, to allow them to remain as long as possible in the ground, and when lifted to dry them before storing in clamps or in large heaps indoors. Potatoes almost everywhere showed in leaf growth the results of an unsuitable season, and in many allotments and cottage gardens when journeying through rural districts it could be seen how attenuated was leaf and stalk; so much so, indeed, that few were observed completely to cover the ground.

Wils.

W. S.

IPOMÆA RUBRO-CÆRULEA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In *THE GARDEN* for July 25 I saw a note on *Ipomœa rubro-cærulea*, with the ending, "It would be interesting to learn whether anyone has tried it out of doors." I have this year planted three or four in different positions outside. One of them is now a mass of buds, though of course the plants do not grow as freely as under glass, and are not more than about 2 feet high, but this is, I think, partly due to the cold wet season, not a good one to try tender plants out of doors. I will if possible take a photograph of the plant when in bloom, as it will, I am sure, interest many. M. MITCHELL, F.R.H.S.

School of Horticulture, Torquay.

BLACK CURRANT BOSKOOP GIANT.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was particularly interested in reading the experience of "S. M." on page 147 with the above Currant, which appears to be working its way to the front. I can fully endorse all that your correspondent says regarding its free growth and excellent cropping, but the great point is whether it is proof against the bud mite pest. It is as an open question whether this can be said of any Black Currant, but after growing Boskoop Giant with other varieties for several years, I am convinced that it is less liable to attack than the old Baldwin for instance. Since the appearance

of the bud mite pest, Black Currant growing has fallen out of favour a good deal, but this year's prices prove what a profitable crop it is, and cultivators on this account will not readily give it up. It is obviously to their interest to pay attention to such a variety as the one under notice, which doubtless possesses some power to resist mite, though it may not be proof against it. H.

ALPINE FLOWERS IN AUGUST.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In travelling through Switzerland one is much struck with the absence of cultivated flowers about the houses of the peasantry. About the hotels, pensions, and in the towns there are plenty of flowers in the gardens, but the love of flowers shown by the Japanese and even by ourselves is quite absent here. Perhaps they are so surrounded by lovely wild flowers that they have ceased to notice them. The *Vallée des Bagnes* runs up from the Rhone Valley for miles. In the struggle for existence one cannot but admire the courage, resolution, and perseverance of the Swiss people; how passionately they love their beautiful land of mountain and valley. This little hamlet of three hotels, a post-office, and a few chalets is only occupied in the summer time. Far above me are giant crags and precipices, above them the Alpine pastures, or Alps, patches of grass, and slopes of meadow, but no tillage, for corn and vegetables are grown far down in the valley. A collection of log-built chalets are built and thatched with shingle. The first Hay crop has been gathered full of lovely spring flowers. Now the second Hay crop is being out and carried in the sloping meadows; each peasant has a patch marked off by a stone or stick. Far above we see the men cutting the succulent verdure of Dandelion, Plantain, Clover, Dock, Mountain Daisy, and *Gentiana lutea* with its handsome leaves and spikes, the women carrying it in great bundles like haycocks on their backs down to the valley, where they spread it out to dry in the sun. It is then put into the Hay barns or wooden chalets. The Silver Fir crowd each other at the foot of the crags and wherever they can get foothold, Nature making lovely groups. This valley is out of the run of the tourist; it is more a haunt of the Alpine climber, the botanist, and lover of Nature. Guides and porters throng the place, and everyone is working at high pressure. The snow has not long melted, as the place is only open for about four months, and the people migrate to Chablaz and lower down the valley for the winter. About the valley, woods, and ravines one sees great vigorous growths of *Mulgedium alpinum* and *Adenostyles alba* with leaves as large as a hat. The blue flowers of the *Mulgedium* or Alpine Sow-thistle are lovely in the dazzling sunlight. Great spikes of *Aconitum Lycoctonum* or yellow Monk's-hood grow with the white Cow Parsley, with the fritillary butterflies sporting about. About the low rocks we notice *Digitalis ambigua*, the yellow Foxglove, the yellow Mullein, and, in sunny bare patches, quantities of *Epilobium rosmarinifolium*, a low growing Willow Herb, which, I think, ought to be grown more at home, Trefoils in great variety, and Dandelions of all sorts.

As we mount higher, the masses of Alpine Rose or *Rhododendron* bushes cover the hills. In the open pastures *Gentiana lutea* with its great ribbed leaves and yellow spikes 4 feet or 6 feet high is a noble object. The most beautiful flowers are found as we mount upward. On the high Alpine pastures the grass and flowers are eaten off, for from above comes the sound of cow-bells, and one sees a herd of cattle looking no larger than red ants. Farther on is a hut, looking like a heap of stones, with smoke issuing out of it. We go inside and find they are making butter from the cream, and cheese from the milk. As we return in the evening the cows are down near the hut waiting to be milked.

Now we leave the mountain pastures and climb higher. The amphitheatre of mountains is grand, the Grand Combin, the third highest mountain in Switzerland, with snow-clad brow towers above, and pours its glaciers down to join the rest. Black serrated rocks and pure white snow form a glorious spectacle. From the hut my three boys ascended

the Combin de Corbassiere in a storm, a sublime climb. Now sunshine and fleecy clouds sail across the sunlit sky, and from the sublime mountain height we turn to look on the tiny flowers nestling among the rocks. What loveliness is here; the brilliant flowers of *Gentiana verna* half an inch high, the tufts of Mountain Daisy, a lichen-covered rock, and groups of the light blue *Myosotis alpestris*, a tall *Campanula* with serrated bells half an inch high, the brilliant red flowers of *Sempervivum arachnoideum*, the *Sedums* and *Saxifrages*, and many *Vetches*; *Linaria alpina*, a purple and yellow gem; *Helianthemum*, with its yellow or rose flowers; and many a gem flowering where no eye can see them in inaccessible places. *Gentiana acaulis* and many of the common flowers are over, but enough remain to delight the eye. Every patch of rock and every square foot of grass are pictures of beauty.

THEODORE WALKER, F.R.G.S.

Glen Hall, Leicester.

MISCELLANEOUS.

AN OUTDOOR FERNERY.

FEW garden retreats are more appreciated during the hot summer months than such as is shown in the accompanying illustration. Ferns and Foxgloves grow there with great luxuriance, the half-shaded situation and the variety of aspect afforded by the rockwork seem to suit them admirably. We are hardly correct, however, in using the word rockwork, for the "rocks" are made of "Pulhamite," a material made by Messrs. Pulham and Son, 71, Newman Street, Oxford Street, W. This is excellent for the construction of waterfalls, cascades and rocks, for margins of streams, lakes, &c., or wherever it comes into contact with water, for it is said to be more durable than stone. Where bold formations are desired with broad massive rocks, the artificial is specially recommended.

In the grounds surrounding many houses there is often to be found a lake, a stream, or, it may be, only a pond, and few realise the possibility of such features, and the effect to be gained by their skilful treatment. In a booklet called "Hints on Rock Formation," Messrs. Pulham and Son give some delightful illustrations of work in Pulhamite which they have carried out in various parts of the country, and those who are interested in rock formation could hardly fail to obtain some valuable ideas from the illustrations as well as good advice from the accompanying remarks.

THE PRIORY, NETTLESTONE, ISLE OF WIGHT.

It is a pleasure, after many years, to revisit this sunny southern island and to see again the *Fuchsias* and *Myrtles* as hardy bushes loaded with bloom, and to contemplate the many delightful possibilities of gardening in its mild climate and generally rich soil.

This pretty place, near the eastern end of the island, lies embowered among well-grown trees on a slope that finally dips down into a beautiful bay richly fringed by its thick woodland growth. It is a sunny, yet perfectly sheltered, spot. One hears a south-westerly gale roaring in the tops of the trees and the

waves beating up in the bay, but on the pretty lawns only pleasant airs come filtering through the protecting leafy screen.

A wide-spreading standard *Magnolia grandiflora* scents the air with its great white cups, and *Araucaria* is loaded with cones. But the pride of the garden is a *Myrtle* hedge that must be 120 feet long or more. It is from 7 feet to 9 feet thick, and every three years is cut down to a height of about 5 feet. Last winter nearly 100 faggots of stuff were cut out of it. Think of 100 *Myrtle* faggots! About half the length is of the small-leaved kind, looking, after its fresh summer growth, much like a neat hedge of *Veronica Traversi*. The other half, of the large-leaved *Myrtle*, is less uniform, the plant being much more variable. One could pick out half a dozen well-marked varieties. This year, after the severe cutting, there is very little bloom, but during the next two years it will flower strongly.

Two young trees of *Eucalyptus globulus* must be hard upon 50 feet high, and bear the mature scimitar-shaped leaves. They flowered freely last summer.

In a shady dell is a bush of *Desfontainea*

GARDENING OF THE WEEK.

KITCHEN GARDEN.

MUSHROOMS.

CONTINUE to make up fresh beds in accordance with the demand and the amount of suitable material obtainable. The aim should be to maintain an unbroken supply from this time until next summer, and to ensure this the material sufficient for one bed should be got together in an open shed and turned every two or three days until the rank steam has passed away, and be made up into a bed a few days after the last was spawned. In forming the bed the manure must be rammed fairly hard as the work of filling proceeds, and a depth of 18 inches or 20 inches is a suitable one. Plunge a pointed stick or a plunging thermometer, specially designed for the purpose, into the centre of the bed, and when the temperature is about 80° and just on the decline insert the spawn in pieces about the size of a hen's egg 2 inches deep and 10 inches apart evenly all over the bed. It should then be covered with an inch of finely sifted loamy soil that is just moist, and pass the back of the spade lightly over it to leave an even surface, but avoid beating it



FERNS AND FOXGLOVES ON "PULHAMITE" ROCKWORK.

spinosa, still carrying a good quantity of its brilliant red and yellow bloom; here also are large bushes of *Camellia*, that flower freely in the earlier year.

It is not the time to see *Orchids* in flower, but The Priory gardens have a fine collection, as well as an abundance of well-grown stove foliage plants, but among the *Orchids* in bloom *Peristeria elata* and the curious green and yellow *Catasetums* are well represented.

The fine lot of *Chrysanthemums*, of splendid growth and vigour, as well as the other departments of houses and grounds testify to the skill and mastery of his craft of the able gardener, Mr. James Nicholson. He has not been long in charge of the gardens, but hopes, by the introduction of a good many more of the plants and shrubs that can be successfully grown in the Isle of Wight, to do justice to the opportunities presented by its favourable climate and conditions.

into a plaster as is sometimes done. A humid atmosphere should be maintained in the structure at all times, and the temperature kept as equable as possible at from 55° to 60°. Some diversity of opinion exists as to whether it is best to cut the *Mushrooms* or to pull them. I am decidedly in favour of the latter mode, and if care be exercised but very few buttons that surround the larger *Mushrooms* will be destroyed. A sharp twist or pull in an oblique direction should be given.

LEeks.

Complete the earthing of those growing in trenches by banking up with soil in like manner to that practised with *Celery*, or, better still, by tying pieces of brown paper loosely round the stems above the earth already placed against them and working more soil to the paper. A well-grown *Leek* should have at least 12 inches of blanched stem, and, provided they have received proper attention hitherto, they will by now be ready for the final earthing-up. The main crop plants that were dropped into holes made with the

digber should now be filled up and some more earth drawn against them with the hoe.

Clearing the ground of crops that have done service, such as Peas, Beans, Cauliflowers, &c., that are of no further use, together with all weeds and other rubbish, will now be engaging attention. Anything that will burn should be taken to the compost yard or other spare piece of ground away from the dwelling and burnt when dry enough, the ashes from this being of inestimable value to the kitchen gardener. Most crops, as well as weeds, have made much growth owing to the dull, rainy season, and much labour will be needed to clean the ground before it becomes more unfit to work upon.

Stoneleigh Abbey Gardens.

H. T. MARTIN.

INDOOR GARDEN.

HYACINTHS.

In selecting bulbs for pot culture care should be taken to secure solid and well-ripened bulbs in preference to large immature light ones, bearing in mind that weight in proportion to size is the most important test to apply when selecting bulbs of any kind, and for pot culture the best bulbs only should be used. The bulb merchants usually arrange their lists in a convenient manner for selecting the early midseason and late blooming varieties. The early ones should be potted during the first week in October, therefore the compost should be prepared forthwith. As a rule, far too little importance is attached to the preparation of soil for bulbous or other plants a few weeks in advance of the time when it must be used, but by so doing the various ingredients become more thoroughly mixed with the bulk of the compost than can possibly be the case if its preparation be deferred to the last moment. For the Hyacinth a sandy, but not too light, loam in the proportion of two-thirds to one-third of cow manure, with additional sand should the loam require it, and a small quantity of Clay's Fertilizer will make a good compost. In potting, 5-inch and 6-inch pots will be found to be the most useful sizes; fill them about three parts with soil pressed firmly, and put a handful of silver sand in the middle of the pot upon which to place the bulb perfectly upright, and so arranged that the apex of the bulb is half an inch above the level of the soil when finished. Afterwards water thoroughly through a fine rose, and allow the pots to drain for twenty-four hours, when they may be plunged to a depth of 6 inches in fine ashes on a hard border where worms are unable to work through.

ZONAL PELARGONIUMS FOR WINTER.

These should now be placed in a light and comparatively dry house, and for dwarf plants at a distance of about 2 feet from the glass. Any plants that have been standing on a loose border, in a pit, or frame should have the drainage examined, and where found necessary renewed, as stagnant moisture at the roots is very injurious to these plants. Those required to bloom in October will be benefited by a very light top-dressing of Clay's Manure sprinkled over the surface of the soil; successional plants must be exposed to all the light and sun possible, and have the flower-buds removed until about three weeks previous to the time they are required to be in bloom. Give them a light dressing of Clay's when the flower-buds are allowed to develop.

ANNUALS AND BIENNIALS.

A sowing in pots may now be made of *Schizanthus Grahami*, *S. G. carmineus*, *S. pinnatus nivenus*, *S. papilionaceus pyramidalis*, and *S. Wisetonensis*. Any light soil and cold frame treatment until severe frost occurs, suits these annuals when they should be placed on a shelf in a cool house. A few dozen pots of *Papaver nudicaule* (Island Poppy) may also be sown now, and given cold frame treatment all through the winter the flowers in early spring will be most welcome.

Wendover.

J. JAKES.

FLOWER GARDEN.

ROSES AND SUMMER PRUNING.

THESE when growing in rich soil often produce many strong shoots, which the French not inaptly

term *gourmands*, and such they truly are, because they rob the other and more moderate growers of their due share of nourishment. The heavy rains and hot weather experienced of late bring this important subject prominently before our notice. These strong shoots should be cut away as soon as they make their appearance, and so should all suckers rising from the roots, as also such shoots as rise from the stock upon which the Rose may be grafted or budded. When a number of shoots are thrown out equally strong, so as to become crowded, one-third of them should be removed entirely, but if it is desired to increase the size of the plant then a portion only should be removed and others shortened by pinching off their tops. Do not shorten any of the others, as that would cause them to send out a number of small, weakly shoots, upon which few or no Roses would be produced the following season. Summer pruning consists chiefly of thinning out superfluous shoots, such as the *gourmands* we have referred to, and also many of those which are weak or unhealthy, and this is best done immediately after the flowering is past. Too much dependence is sometimes placed on winter pruning alone, and too little on summer pruning or thinning of the shoots. Where the latter is disregarded the plants become in a short time exhausted by the production of shoots grown for no apparent purpose but to be cut in winter and thrown away, whereas if removed early in summer, before the flower-buds form, the sap which goes to the formation of these useless shoots would be thrown into those that must be left as well as into the flower-buds, ensuring a more abundant and perfect bloom, as well as giving additional strength to the tree to resist the attacks both of disease and insects.

HERBACEOUS PLANTS.

To those who look for good results the first season after planting, no time should be lost in getting the plants well established before the winter. Many things, such as the following, are better for being planted at this season: *Achillea Ptarmica* fl.-pl. and its charming variety *The Pearl*, both of which are excellent garden plants, and all of the greatest value for cutting purposes; the *Doronicums*, many of them most showy and useful for cutting—*D. plantagineum excelsum* (Harpur Crewe) is our best; the early-flowered *Adonis vernalis* and the pretty leaved *A. amurensis*, with many others may now be planted with almost a certainty of doing well. *Anthericum Liliaceum* and *A. Liliaceum* should be planted early; they require fairly good soil and a well sheltered position. *Delphiniums* are greatly improved by division and replanting. If allowed to remain too long in the same position they exhaust the soil and the flowering spikes become weak.

THE RESERVE GARDEN.

All plants that will be required for planting out towards the end of next month should now be carefully gone over, all weeds should be removed, and as much air and light as possible be given. Much of the future success depends on how the plants are treated now.

T. B. FIELD.

Ashwellthorpe Gardens, Norwich.

FRUIT GARDEN.

PEACHES.

THE lifting, root pruning, and rearrangement of the trees in the early house may be proceeded with at the earliest convenience. To perform this work successfully it should be taken in hand and carried out with as little delay as possible, and if the trees are completely lifted and removed to fresh stations the roots will require a good soaking of water to settle the soil about them, when new growth will set in. To have ripe Peaches in May, houses planted with the earliest sorts of recent introduction may be started in December; but for giving the best quality of fruit this section must give way to such Peaches as Abec and Early Grosse Mignonne, two varieties which require a little more time to finish them properly. For succession we have *Belle Bauce*, *Stirling Castle*, *Royal George*, *Violette Hative*, and *Bellegarde*, still one of the best Peaches in cultivation. To the above, for planting in mid-season and late houses, may be

added a very superior old Peach named *Dymond* (not Diamond), *Barrington*, *Gregory's Late*, and *Walburton Late Admirable*, a large pale Peach, equal to Noblesse in quality, but a shy setter unless the wood is thoroughly ripened. Where more than two varieties of Nectarine are grown *Lord Napier* and *Stanwick Elruge* should have a place, the one to precede and the other to succeed the indispensable *Elruge* or *Violette Hative*. All the yellow-fleshed Nectarines are excellent. As the time is now approaching for selecting trees from the nursery, the first consideration should be the stock, as the best sorts on bad stocks always end in disappointment and loss.

FIGS.

By removal of the roof lights and the withholding of water early-forced pot trees will now be losing their leaves and going to rest. If any small fruits remain on the points of the shoots rub them off, and leave all quiet and undisturbed until the end of October, when the annual thinning and cleansing may be performed. If, as is by no means improbable, the trees have been attacked by spider or scale, repeated washings with strong soapy water or Gishurst Compound will weaken the enemy before the final cleansing takes place. Where the early trees are planted out and space is limited annual root pruning is recommended. The period immediately preceding the fall of the leaf is the best time for lifting. Every tree should be well drained with broken bricks and old rubble, and the compost, consisting of strong turfy loam, old mortar, and crushed bones, should be mixed up and used in a dry state. Give particular attention to trees in late houses and cases against walls, as scarcity of open air Figs is very great, and a large dessert in September without a good dish of this delicious fruit is by no means complete.

STRAWBERRIES.

Let the most forward plants of the sorts intended for early forcing be examined and moved from time to time to prevent the roots from striking into the ground or bottom of the bed in which they are partly plunged. If, as is generally the case, they occupy very small pots they will require a supply of water every day to keep the soil from shrinking away from the sides, and an occasional syringing with clean sulphur water will do no harm in checking spider and mildew, which sometimes get a hold of the plants and breaks out in a very lively form when they are introduced to the genial warmth of the forcing house early in the spring. This must be looked to. Pay also particular attention to the mid-season and late sorts now making rapid growth, and move them to the most suitable places for ripening up the crowns and foliage. Keep all runner growth removed from young stock both planted out and in pots, giving an occasional surface sprinkling of either artificial or liquid manure, so as to build up solid, well ripened crowns, quite the secret of success for the coming season's crop.

Madresfield Court Gardens.

W. CRUMP.

SOCIETIES.

ROYAL CALEDONIAN HORTICULTURAL SOCIETY.

Held on the 9th and 10th inst., as usual, in the spacious Waverley Market, Edinburgh, this ever-popular autumn show presented one of the surprises of the season, for doubtless most people would expect to find the exhibition as a result of the unpropitious weather of the summer, one of the "lean" kind. As a matter of fact, while Grapes and fruit generally were staged in smaller quantities than usual, the display as a whole, particularly of cut flowers, left nothing to be desired. Some of the chief classes were as follow:—

Table of dessert fruit decorated with plants or cut flowers (Orchids excluded) and foliage. Prizes were offered for fruit as distinct from decoration, and judging was by points. Three competitors staged, Mr. Goodacre, Elvaston Castle, being first for fruit with a total of 106½ points, and third for decoration, with 15 points. The fruit included fine Madresfield Court, Black Hamburg, and Muscat of Alexandria Grapes, splendid Albert Victor Nectarines, Ribston Pippin and Washington Apples, fine Barrington Peaches, Margaret Marillat and Souvenir du Congrès Pears, &c. The floral adjuncts, though awarded third, were generally considered superior to the others; *Montbretia*, with sprays of *Francos ramosa* with light trails of foliage produced the chief effects. The second prize for fruit was awarded to Mr. Kidd, gardener to Lord Elphinstone, Carberry Tower, Musselburgh, with fruit that gained 90½ points, and first for decoration with 25 points. The third prize for fruit was secured by Mr. Smith, gardener to Earl of Stair, Oxenford Castle, Larkhall, with 80½ points, and second for decoration with 21½ points.

For a collection of ten dishes of fruit, Mr. Goodacre was the only exhibitor, and to him the first prize was awarded. For a collection of ten dishes of hardy fruits produced in Scotland, Mr. Day, gardener to the Earl of Galloway, Galloway House, was the sole exhibitor, staging a very nice lot and securing the first prize.

For a collection of twelve dishes of fruit grown in an orchard house, Mr. Goodacre was first, staging magnificent examples of Peaches, Nectarines, and Peaches, as well as smaller fruits; Mr. H. Greenlaw, gardener to Mr. Younger, Benmore, Argyllshire, was a very good second, showing fruit equal to Mr. Goodacre in not a few sorts.

The Grapes, as already stated, were staged less largely than usual, but in many instances the competition was not without that keenness that lends zest, not alone to the competitors, but also the appreciative onlooker. Mr. Goodacre did not stage in the six-bunch class, Messrs. D. and W. Buchanan, Kippen, securing first in a very good competition with specially fine clusters; Mr. Belsant, gardener at Castle Huntly, Perthshire, came in a most creditable second, his specimens of Madresfield Court being particularly fine samples of that good Grape; Mr. W. Green, gardener to Sir Charles M. Palmer, M.P., Loftus, also staging well for third place.

Well-finished clusters of Muscat of Alexandria secured the prize in the class for two bunches, Mr. Hughes, Peebles, being first, Mr. Goodacre second, and Mr. Day third. In the one-bunch class Mr. Goodacre changed places with Mr. Day; Mr. J. A. Wann, gardener to Lord Balfour of Burleigh, Kennet Allon, being third.

For two bunches Black Hamburgh, a class well filled with good Grapes, Mr. Goodacre secured first; Mr. A. Grieve, Kirkcaldy, second, and Mr. Kidd third. In the one bunch class, Mr. Grieve was first with a nice cluster; Mr. Stuart, gardener to Earl of Lauderdale, Thirlstane Castle, second; and Mr. Galloway, gardener to Earl of Wemyss, Gosford, third.

There were also good examples of other varieties staged, notably Madresfield Court from Mr. Belsant; Alicante from Mr. Sutherland, Polmont Station; and Buckland Sweetwater from Mr. Mathieson, gardener to Lord Kinross, Gorseburgh, North Berwick.

Of other fruits special mention may be made of Peaches, Mr. Wilson, Rugby, staging excellent Sea Eagle, and the large quantities of Apples in single dishes as well as in collections. Of the latter the Dunn Memorial Prize of a medal with a money consideration added, brought out a strong competition, but, unfortunately, the fruit was in many instances of inferior quality. The prize was secured by Mr. Sinclair, Congalton Gardens, Drem, with clean, well finished fruit; Mr. Day securing second, and Mr. Murray, gardener to Earl of Ailes, Culzean Castle, Maybole, third.

For a collection of six sorts there was again a strong competition, Mr. Smith, The Convent, Roehampton, being slightly ahead of the others; Mr. Caddick, Caradoc, Ross, second; Mr. Gibson, Kingston-on-Thames, third.

A class for seedling Apples brought together a number of varieties, the first prize being awarded to Mr. B. Lawrie, Perthwick, Ayr; Mr. Murray, Culzean, second; Mr. Findlay, gardener to Count Munster, Maresfield, Sussex, third.

In the single dish classes were numerous examples of good Apples, but almost without exception unripe, such well-known sorts as Lord Derby, Lane's Prince Albert, Lord Grosvenor, Lord Suffield, Lady Sudeley, James Grieve, and Beisham Orange being well shown.

The collection of Pears in twelve varieties brought two lots only, but both good, Mr. Findlay being first, and Mr. G. Mackinlay, gardener to Earl Cowper, Wreat Park, second.

A collection of six varieties, confined to Scotland, was not so keenly competed for, Mr. Greenlaw, Benmore, having nearly good fruits, and Mr. Galloway, gardener to Earl of Wemyss, Gosford, Longliddry, second. In the single classes notable examples of Williams' Plumetree Duchesse, Beurre d'Amal and Duchesse d'Angoulême occurred.

PLANTS

In plants there was nothing very special, Mr. Wood, gardener to J. Buchanan, Esq., Oswald House, Edinburgh, being the sole exhibitor in the group class, and securing first prize. A few good Orchids were staged, Mr. Sharp, Forganendy, securing all the firsts. The four exotic Ferns from Mr. Bruce, gardener to P. Neil Fraser, Esq., Rockville, were also noteworthy, and in addition there were the usual foliage plants, besides other flowering and foliage subjects.

CUT FLOWERS

These formed a remarkable display, twelve and six Gladioli were much superior to those usually seen. Mr. Bennet, Serwick; Mr. B. Lawrie, Prestwick; and Mr. Brydon, Inneslathen, taking the prizes in the order named.

Double Begonias from Mr. Johnston, Prestonkirk, were also very fine. Sweet Peas brought many competitors, Mr. Malcolm, Duns, being first for twelve sorts, and Mr. I. Prosser, Corstorphine, in the same position for six sorts, the latter being remarkably fine alike in size and colour of bloom.

Roses, though small, were fresh and clean. Mr. Bennet, Helensburgh; Mr. Farlane, Roselea; and Mr. Whyte, Helensburgh, securing the chief prizes. Carnations shown in vases constituted another good feature. Many of the blooms were somewhat small, but in the leading lots this was not the case. Mr. Brydon, Inneslathen, easily attaining first place for these and for Picotees. The twelve bunches of herbaceous flowers from the same exhibitor were also noteworthy, and in addition Asters, Chrysanthemums, and Dahlias were staged in large numbers. The prizes for a decorated table were secured respectively by Miss J. Macintosh, Mrs. Duncan, Fogo, and Miss Jane T. Campbell.

VEGETABLES

were abundantly shown, the collections, though limited in number, evincing evidence of superior cultural skill. Mr. J. Gibson, gardener to B. W. Hudson, Esq., Dunsfield, Marlow, Bucks, secured first place with 61 points; Mr. W. Harper, Tullibolton, Bankfoot, second, with 54½ points, and Mr. Rae, gardener to Captain Scott Kerr, Sunlawn, Kelso,

third, with 52½ points. Of single dishes mention may be made of Cauliflowers, Cucumbers, Peas, Leeks, Celery, and Carrots, as being good examples of high cultivation.

NURSERYMEN

In the classes devoted to nurserymen the strongest competition occurred in the Rose classes. The blooms, though not so large as summer productions, were characterised by wonderful freshness and good colour, the Aberdeen Roses of Messrs. James Cocker and Sons being the best as a whole of those staged, this firm securing firsts for thirty-six, eighteen, and twelve blooms of pink Roses and for a collection which contained some grand examples of the various sections. Other eminent growers were Mr. Hugh Dickson, Belfast, and Messrs. D. and W. Croll, Dundee, who secured first in the Tea class, as also for twelve scarlet Roses.

Messrs. Cocker and Sons, Aberdeen, were the only exhibitors in the class for 100 bunches of hardy flowers, staging a grand lot of the best flowers of autumn. Dahlias were shown well by Mr. Hamill, The Vineyard, Birmingham, and by Mr. Smellie, Banbury, and Messrs. Campbell and Sons, High Blantyre. Messrs. George Mair and Son, Prestwick, alone staged Gladioli, but these were remarkably fine. Mr. Whitehead, Selkirk, had the best Carnations staged in vases, and Messrs. Campbell and Sons the finest Picotees.

NON-COMPETITIVE EXHIBITS

To these was due not a little of the success of the show. They formed a very large proportion of the exhibits. It is impossible to detail all, but mention must be made of the following: Messrs. Dobbie and Co., Rothesay, set up a better than usual group of Dahlias, chiefly of the Cactus section, and including other flowers. Gold medal.

Messrs. Storrie and Storrie, Dundee, furnished a large table with material remarkable for its excellent quality, e.g., cut Begonias, Streptocarpus, and plants of Coleoides, with tall fruiting Apples in pots. Silver-gilt medal.

Messrs. A. Lister and Sons, Rothesay, staged specimen blooms of florist's flowers, including Panicle, Carnations, Picotees, and Cactus Dahlias.

Mr. Henry Eckford, Wem, exhibited his usual table of Sweet Peas, and Mr. A. F. Dutton staged a few varieties of Carnations, including Royalty and Mrs. Lawson, grown with long stems and neatly arranged. Silver medal.

Messrs. Blackmore and Langdon, Bath, staged a collection of double Begonias in pots, including the newest forms, such as Rosie, Lady Wilmot, &c., and Mr. Jannock, Dersingham, had Lily of the Valley and Lilacs. Silver medal.

Messrs. Cunningham, Fraser and Co., Comely Bank, forwarded an extensive group of hardy shrubs, conifers, and hardy flowers (gold medal); and Messrs. J. Grieve and Sons, Redbraes, showed the last-named also. Silver medal.

Mr. John Forbes, Hawick, presented his usual autumn display of Phloxes, Carnations, Pentstemons, &c., with a group of East-Lothian Stocks and Hollyhock spikes. Silver medal.

The very attractive Chrysanthemum maximum, King Edward, was staged by Mr. W. Angus, Penicuik, to which an award of merit was given.

Carnations were shown by Messrs. Kent and Brydon, Darlington (bronze medal); by Messrs. Dickson and Sons, Edinburgh (silver-gilt medal); and by Messrs. Laing and Mather, Kelso, who made a very effective display of these popular flowers (gold medal).

A small but well-furnished table of flowering Orchids was arranged from the establishment of Messrs. Sander and Sons, St. Albans, and a very large table of miscellaneous plants by Mr. John Downie, 144, Princes Street, Edinburgh. Silver-gilt medal.

Extensive groups of plants were arranged on the floor of the building by some of the large trade firms, Messrs. Dickson and Co., Waterloo Place, having a massive arrangement, in which their novel dwarf salmon-coloured double Geranium Coronation Gem was prominently beautiful. Silver-gilt medal.

Messrs. B. B. Laird and Sons, Limited, occupied a large amount of space with one of their artistically arranged groups, in which many Dracenas, standard Crotons, Lilliums, retarded Azalea mollis, and handsome Palms and Cycads were employed with good effect. Gold medal.

Another extensive group was arranged by Messrs. T. Methven and Sons, 15, Princes Street. This was perhaps the finest arrangement and the most generally effective in the exhibition. Little groups of Lillium lancifolium in variety, with Chrysanthemums, entered largely into its composition, which was at once a little bit formal, and at the same time just sufficiently bold to produce no effect of over-trimness. Gold medal.

Another feature of a different kind was the collection of bouquets, wreaths, crosses, and other floral arrangements produced by Messrs. Todd and Co., florists, Edinburgh. Roses entered largely into the composition of the whole of these, the excellency of which may be estimated by the gold medal which was awarded to the exhibitors.

In addition to the above, a silver medal was awarded to Mr. B. Lawrie, Roselea, Prestwick, for Apple trees in pots; to Messrs. William Thomson and Sons, Clovenfords, a silver-gilt medal for fruit; to the Ransleigh Nursery Company, a bronze medal for an exhibit of Asparagus myriocladus; and to Mr. J. Rowal a bronze medal for Pentstemons.

NEW PLANTS

A more than ordinary number of products was before the committees of the society for awards. The following are those that were considered worthy of distinction:—

Carnation *Francis Samuelson*, soft apricot, from Mr. G. F. Brotherton, gardener to F. Samuelson, Esq., Breckenburgh Hall, Thirsk, a first-class certificate.

Awards of merit were conferred respectively on *Cactus Dahlia Lucifer* and *Fancy Dahlia William Skeldon*, from Messrs. Dobbie and Co., Rothesay; a sport from Chrysanthemum R. Curtis named Janet H. Grieve, with pure white flowers, and on C. J. Cutler Grieve, a bronzy brown sport from Casimir-Perier, both from Messrs. J. Grieve and Sons, Redbraes Piffry, Edinburgh. Also to a red-flowered Fuchsia of the fulgens type, named Rev. H. Hennel, from Messrs. Dobbie and Co., Rothesay.

EAST ANGLIAN HORTICULTURAL CLUB

THE chief feature at the September meeting of this club, held in Norwich a few days ago, was an essay competition for prizes generously offered by Messrs. Daniels Bros., Limited, upon "Fruit Growing for Cottagers and those with small holdings, giving the best sorts to grow." It was rather to be deplored that out of such a large number of members only two of the "craft" should send in papers. These were both practical papers, and were listened to with marked attention. Some good points were raised in the discussion which followed, especially that of the grower for market in not taking the trouble to grade and pack his fruit and combine to find the best market, in the same manner that the foreigner does. The paper sent in by Mr. H. B. Dobbie, Pinebanks, Thorpe, was awarded first prize, and the second to Mr. F. Palmer, Fernhill Gardens, Thorpe.

Another notable feature of the evening was a varied collection of edible and poisonous fungi, set up by Mr. H. B. Dobbie, who also read a short paper upon them and their uses. Other non-competitive exhibits comprised a grand collection of single Begonia blooms from Mr. T. Nottley, Thorpe St. Andrew; some Bean pods of an African variety, 2 feet 8 inches long, brought up by Mr. Robert Holmes, Tuckwood Farm, Norwich; and a stand of choice Cactus Dahlias from the school garden of the Nelson Street Boys' Board School, of which Mr. C. Hubbard—himself an enthusiastic horticulturist and botanist—is head master.

In the third and final competition for two challenge bowls, Mr. C. Hines, gardener to Garrett Taylor, Esq., Trowse, secured both, a very creditable performance. For the one presented by Mrs. Louis Tillett, he had set up a good collection of fruit. For that presented by Mrs. E. T. Boardman he had to exhibit six bunches of herbaceous flowers, and here he was closely followed by Mr. F. Carrington, an amateur, who only lost in the aggregate by 8 points. The monthly exhibition of cut flowers and vegetables was held, Cactus Dahlias and French Beans being well shown. Among those present supporting the chairman, Mr. J. Powley, were Messrs. T. B. Field, J. W. Church, G. Davison, J. E. Barnes, R. Holmes, E. Peake, J. E. Clayton, C. Hubbard, and George Daniels.

MANCHESTER DAHLIA SHOW

THE northern show of the National Dahlia Society was held in the exhibition house, in combination with the Manchester Royal Botanical and Horticultural Society, on the 11th and 12th inst. It proved a decided success, but, unfortunately, was not patronised by visitors to the extent it deserved. All the arrangements were carried out under the supervision of Mr. P. Weathers.

Thirty-six blooms, show and fancy, distinct: Mr. Charles Turner, Slough, gained the position of honour with a very fine stand of Duchesse of Albany, Mand Fellows, Arthur Rawlings, Daniel Cornish, P. T. Rawlings, Arthur Cook, Mrs. C. Noyes, and others; Mr. S. Mortimer, Farnham, second, with a good lot; and Mr. J. Smellie, Bury, third.

Twenty-four blooms, show and fancy Mr. M. V. Seale, Sevenoaks, gained the premier position, having good blooms of Daniel Cornish, Harry Keith, Merlin, Henry Walton, Diadem, J. T. West, A. Rawling, T. Pearce, Reliance, and others.

Twelve varieties, distinct: Messrs. J. Cheal and Sons led with a good stand, Mr. Thomas Jones, Ruabon, being second.

Twelve Cactus varieties in bunches of six blooms each: Mr. James Stredwick, St. Leonards-on-Sea, was first with Mrs. Wawley, Oliver Twist, H. J. Jones, Ella Kraemer, Mrs. J. W. Wilkinson, Falcon, Rainbow, &c.; Messrs. Keynes, Williams and Co., Salisbury, were second with a good stand, including Imperator, Winsome, &c.; Messrs. J. Cheal and Sons third.

Twenty-four blooms, Cactus varieties, distinct: First, Messrs. Keynes, Williams and Co., with good blooms of Minnie West, J. H. Jackson, J. W. Wilkinson, Phineas, Karki, Mrs. J. Crowe, and others; Mr. J. Smellie was second with some fine flowers; and Mr. W. Treseder, Cardiff, third.

Twelve Cactus varieties, six blooms of each, arranged in vases with any foliage, grasses, or berries: First, Mr. M. V. Seale, with a very fine lot tastefully arranged with long stems; Messrs. Keynes, Williams and Co. were second, and Mr. W. Treseder third.

Twelve varieties Pompons, ten blooms of each: First, Mr. Charles Turner, Slough, with beautiful flowers of Bacchus, Emily Hopper, Nellie Broomhead, Daisy, Silvia, Queen of Whites, Darkest of All, San Toy, and others; Messrs. M. V. Seale and Keynes, Williams and Co. took second and third respectively.

Twelve single varieties, in bunches of ten, brought a brilliant display, in which Messrs. J. Cheal and Sons won with beautiful types of Vesuvius, Mr. Amos Perry, Tommy, Princess of Wales, Hilda, and Victoria; Mr. M. V. Seale was an excellent second.

AMATEURS

Eighteen varieties, show and fancy: Mr. T. Jones, Ruabon, had the best; second, Mr. E. T. Mathews, Derby; third, Mr. T. Shawcross, Stratford. Twelve blooms: The first prize taker was Mr. J. Pilling, Hyde.

Twelve blooms, Cactus varieties, distinct: Messrs. E. T. Mathews, J. Pilling, and T. Shawcross were first, second, and third respectively. For six varieties, Mr. F. H. McGrath, Huddersfield, was first. For three vases, six blooms of each, Mr. T. Jones was the winner.

Six varieties, Pompons, in bunches of six blooms: First and second were Messrs. T. Shawcross and Herbert Massey, Didbury. Vase of twelve, arranged for effect: Mr. T. Jones secured the chief award.

LOCAL CLASSES

Twelve show and fancy: First, Mr. E. Potts, Handforth; second, Mr. Herbert Massey; third, Mr. T. Shawcross. Six show or fancy: First, Mr. J. Pilling.

Six Pompons, six in each bunch: The winners were Messrs. E. Potts, H. Massey, and Lady Annette de Trafford.

Twenty-four Cactus varieties: First, Mr. T. Shawcross; second, Lady Annette de Trafford. For twelve varieties, Mr. E. Potts and Mr. Herbert Massey were placed as named.

NEW DAHLIAS.

Certificates were awarded to Mr. W. Treseder for *Mary* and to Messrs. J. Stredwick and Son for *George Gordon*, *Rainbow*, *Hereford*, and *Comet*.

NON-COMPETITIVE EXHIBITS.

These, as usual, occupied a prominent position and added much to the interest of the exhibition. Large gold medals were awarded to Messrs. Hobbies, Limited, Dereham, for a very attractive display of Dahlias in great variety; and to Messrs. Dickson and Robinson, Manchester, for an exhibit of some seventy varieties of Lettuce and a pleasing display of cut Dahlias.

Gold medals were given to Messrs. Dickson, Brown, and Tait, Manchester, for a grand display of Tomatoes in about seventy varieties (red, yellow, and white); and to Mr. J. H. White for a fine collection of hardy cut flowers, Montbretias, Gladioli, Liliums, Phloxes, &c., being most effective. Stems of Tomato White's Majestic carried seven good fruits to the bunch.

Silver-gilt medals were awarded to Mr. A. J. A. Bruce, Didbury, for an excellent display of Chrysanthemums, hardy cut flowers, &c.; Mr. J. Robson, for a large display of Dahlias; and to Messrs. Dobbie and Co., Rothesay, for an exhibit of Dahlias, well arranged.

A silver medal was given to Mr. W. L. Pattison, Shrewsbury, for a collection of Fancies and Violas. Mr. Charles Turner staged a selection of his new Dahlias. Messrs. Dicksons, Chester, had an exhibit of stove and greenhouse plants and cut Dahlias.

Mr. J. Robson, Altrincham, secured the gold medal in the open competition for hardy herbaceous cut flowers with a very fine display, that included a large number of Liliums.

MOFFAT AND UPPER ANNANDALE.

THIS show, held in connexion with the large agricultural show at the popular summer resort of Moffat, Dumfriesshire, on the 11th inst., was, as a whole, of equal quality to those of former years, the number of entries showing a slight increase.

Interest in the gardeners' class centred chiefly in the 8 feet by 4 feet table competition, in which a fine arrangement from Ericstane greenhouses (gardener, Mr. Ewen Cameron) was first; Mr. William Murray, Ardenholm, being a good second. Mr. Luke Fraser, Craiglands, was first for stove and greenhouse plants in flower, and Mr. Cameron was second, while for foliage plants the positions were reversed. Mr. Adam Rankine, Vicalands, who carried off the Lilium prize, was second for Fuchsias, being beaten by Mr. John Hamilton, Heywood.

Other awards for pot plants which made a capital show were as follows:—Early Chrysanthemums: First, John Hamilton; second, W. Murray. Stove or greenhouse plants: First, Ewen Cameron; second, Luke Fraser. Hardy Ferns: First, Ewen Cameron; second, W. Murray. Exotic Ferns: First, W. Murray; second, L. Fraser. Coleus: First, L. Fraser; second, W. Murray. Begonias: First, W. Murray; second, L. Fraser. Zonal Geraniums: First, J. Hamilton; second, E. Cameron. Plants for table decoration: First, L. Fraser; second, James Allen, Arundel House, Dumfries. Mr. Cameron was awarded the silver medal for the most meritorious plant in this class.

Cut flowers also were very creditable, especially flat petalled Asters, for which Mr. A. Taylor, Alfred Cottage, was first, and Mr. B. Richardson, Moffat, second. For hardy herbaceous plants, Mr. Cameron was first, and Mr. Murray second; for Roses, Mr. Fraser first and Mr. Allan second; for Dahlias, Mr. James Raphael, Langshaw, first, and Mr. James Purves, Marchbankwood, second; for Sweet Peas, Mr. W. Murray first, and Mr. J. McAllister, Drumcreeff, second; for hand bouquet, Mr. J. McGillivray, Craigleburn, first, and Mr. E. Cameron, second; for wedding bouquet, Mr. J. McGillivray first, and Mr. L. Fraser second.

Fruit and vegetables were not so good as usual, but nevertheless some excellent exhibits were forward. The Grape prizes were won as follows:—Black Grapes (Hamburghs): First, D. Anderson, Sunnybrae; second, E. Cameron. Grapes (Hamburghs excluded): First, D. Anderson; second, E. Cameron. White Grapes: First, James Allen. Finest flavoured Grapes: First, J. Allen; second, D. Anderson. Finest bloom: First, E. Cameron; second, J. Allen.

Messrs. Palmer and Son, Annan, had on exhibition a fine stand of Roses.

ROYAL HORTICULTURAL SOCIETY.

CHISWICK, SEPTEMBER 11.

A MEETING of the fruit and vegetable committee was held on the above date, Mr. H. Balderson presiding. Also present were Messrs. O. Thomas, G. Kelf, W. Bates, G. Woodward, H. Ealing, J. Jacques, H. J. Wright, J. Smith, and A. Dean, thus forming a full quorum. The attention of the committee was first given to Potatoes, of which a large collection of old and new varieties had been grown. Generally leafage had disappeared; only in a few cases was it still green, and these varieties had to be omitted. Some gave splendid crops of tubers; others very poor ones. Disease was very little in evidence. Eight varieties were selected for the cooking test, all being very good croppers. The cooking of the tubers is in their coats, and is always remarkably well done.

Of these, when tested, two varieties out of several sent by Lord Carew from Ireland obtained awards. To Lim Gray, a very fine cropper, tubers oval, round, and a nice even sample, was given a first-class certificate, as it cooked so admirably.

An award of merit was given to Maid of Coll, also a fine cropper, with handsome white, roundish tubers.

An award of merit was also given to Dalmeny Beauty (J. Smith), a very heavy cropper, tubers longish, round, and white; and to H. Fincham (Fincham, Kent), also white, and

a heavy cropper. An old variety, Daniels' Special, certificated in 1894, was found excellent and a heavy cropper.

A large collection of Tomatoes in pots under glass was seen, but none were regarded as worthy of any award. Nearly all the varieties grown were excellent croppers, and generally were very even in appearance.

A fine mid-season Cauliflower, head solid, white, and compact-headed, named Daumman's Eclipse, secured an award of merit. A quantity of coarse Kale and Cabbages also were seen, but none of them were suited for garden culture.

DRILL HALL.

THE meeting on Tuesday last was of an exceptionally interesting character, both on account of the diversity of the exhibits and of the nature of these. Hardy flowers, Orchids, miscellaneous flowering and foliage plants, fruit and vegetables were all unusually well shown; and there was in addition an exhibition of fungi, both edible and poisonous. Everyone seemed interested in these, most of which possessed a further attraction in that they were labelled either poisonous or edible. The tables upon which they were displayed were thronged with people during the afternoon, and the lecture given by Dr. M. C. Cooke upon edible fungi was very largely attended.

It is not often that three gold medals are awarded at a Drill Hall meeting, but this was the case on Tuesday last, the recipients being Messrs. Charlesworth and Co., Heaton, Bradford, for a display of Orchids that was spoken of as one of the choicest collections ever seen at the Drill Hall; Messrs. Dickson and Robinson, Manchester, for an exhibit of Lettuces containing no less than sixty-eight varieties; and Messrs. James Veitch, Limited, for a grand exhibit of Nepenthes.

ORCHID COMMITTEE.

Present: Messrs. Harry J. Veitch (chairman), James O'Brien, de B. Crawshaw, W. Boxall, J. W. Odell, H. Little, Jeremiah Colman, H. A. Tracy, W. H. Young, J. Wilson Potter, W. H. White, F. W. Ashton, A. McBean, F. J. Thorne, G. F. Moore, Francis Wilesley, H. Ballantine, and J. G. Fowler.

Messrs. Charlesworth and Co., Heaton, Bradford, Yorks, had an admirable display of Orchids, among which were many fine hybrids, most of which have at one time or another received first-class certificates or awards of merit. Some of the most remarkable were *Brasso-Cattleya gigas-digbyana*, *Cattleya Mrs. J. W. Whiteley*, *C. fulvescens* (with rich orange-yellow throat and pink-edged lip), *C. Mrs. Pitt*, *C. Harrisonae* var. *Alexandria* (a lovely flower of purest white, except for a green tinge on the lip), *C. Iris* (bicolor x aurea), *C. Germana* (scholfieldiana x hardyana), *Brasso-Lælia purpurato-digbyana* var. *marginata* (a lovely flower, the large lip a soft rich purple and the throat white), *L.-C. Callistoglossa*, *Sophro-Cattleya Heatonensis* (saby-red), *L.-C. Clive*, and others. Gold medal.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, exhibited a good group of Orchids that contained *Odontoglossum crispum* varieties, *Bulbophyllum Lobbi*, *Oncidium carthagenense*, *Cypripedium Olivia*, *Vanda Hookeri*, *Cattleya gaskelliana* alba, *C. lawrenceanum hycanum* Vanner's variety (a darker green than usual), *C. Mrs. George Trudault*, and some *Oncidiums*. Silver Flora medal.

H. T. Pitt, Esq., Stamford Hill, N. (gardener, Mr. F. W. Thurgood), showed a group of Orchids that included *Cattleya gaskelliana* alba, *C. armavillieriensis* (gigas x Mendell), a handsome form; *Miltonia Blunif* variety, *Cypripedium Felleity*, *Eulophia guineensis*, *Odontoglossum bictoniense* album, *Vanda coerulesa*, and others. Silver Flora medal.

Messrs. Sander and Sons, St. Albans, exhibited some very good hybrid *Lælia* and *Cattleya*. We noticed *Cattleya Lord Rothschild* (*gaskelliana* x *dowiana* var. *aurea*), *C. Mastersoni* (*Loddigesii* x *labiata*), *L.-C. canhamiana* var., *L.-C. Alalanta* (*C. Warscewiczii* x *L.-C. elegans*), *L.-C. Herga* (*L.-C. elegans* var. *Turneri* x *C. gaskelliana*), *Cypripedium Transvaal* (*chamberlainianum* x *rothschildianum*), *C. purpurato-Veitchii* (*purpuratum* x *Veitchii*), and other Orchids were included. Silver Flora medal.

Messrs. James Veitch and Sons, Limited, Chelsea, showed several good hybrid Orchids—for instance, *Cattleya Cyane* (*C. Mossiae* x *guttata* Leopoldi), *C. pittiana* (*C. dowiana* aurea x *granulosa* scholfieldiana), *L.-C. haroldiana* (*L. tenebrosa* x *C. hardyana*), and *L.-C. Eunomia* (*L. pumila* var. *dayana* x *C. gaskelliana*).

Mr. Timmis, Stone Hall, Oxted, Surrey, showed a plant of *Cattleya Loddigesii*, bearing four fine racemes of flowers. Cultural commendation.

T. M. Crook, Esq., Hoxhton, near Preston (gardener, Mr. W. J. Perks), showed several Orchids, two of which obtained award of merit.

Sir Trevor Lawrence, Bart., Burford, Dorking (Orchid grower, Mr. White), showed *Polystachya buchaniana* var. *viride* (botanical certificate); *L. C. Prosperina* (*L. dayana* x *C. velutina*); *L. C. purpurato-chilensis*, *Oncidium boothiana*, bearing a profusion of small yellow and brown flowers; *Miltonia bleuana*, *Bulbophyllum Micholitzii*, *Dias grandiflora*, with twenty-four blooms on a raceme; and *Pholidota chinensis*. Silver Banksian medal.

C. H. Felling, Esq., (gardener, Mr. C. Stocking), showed some hybrid *Cypripediums*, for instance, *Cypripedium Elise* (*Pallas* x *rothschildianum*); *C. massianum* (*superciliare* x *rothschildianum*), and *lawrenceanum* x *rothschildianum*. The plants were very vigorous and bearing fine scapes of flowers. Vote of thanks.

NEW ORCHIDS.

A first-class certificate was given to *Zygopetalum rabbinianum*.—A hybrid between *Z. rostratum* and *Gautieri*. It is a striking flower, and a valuable addition to hybrid *Zygopetalums*. The lip is richly coloured, being heavily splashed with purplish rose, deepening to purple towards the top. The sepals and petals are brown, with a wide border of rich green, making an effective contrast with the brightly coloured lip. This plant was shown by C. G. Roebing, Esq., U.S.A. (through Messrs. Sander and Sons, St. Albans). It was to be offered for sale at Messrs. Protheroe and Morrie's rooms yesterday (Friday), and the

proceeds given to the Royal Horticultural Society's building fund.

Awards of merit were given to

Cypripedium raffartianum.—*C. lathamianum* and *C. Charlesworthii* are the parents of this hybrid. The large, broad dorsal sepal is pale rosy purple, and the sepals and petals are purplish brown. From T. M. Crook, Esq., Hoxhton, near Preston.

Cypripedium lawrenceanum gratianum.—This was also shown by T. M. Crook, Esq.

FRUIT AND VEGETABLE COMMITTEE.

Present: Messrs. George Bunyard (chairman), H. Balderson, Henry Ealing, T. W. Bates, S. Mortimer, Alex. Dean, George Kelf, J. Jacques, H. Markham, Owen Thomas, G. E. Maycock, J. Willard, James H. Veitch, A. H. Pearson, H. Somers Rivers, W. Poupart, E. Molyneux, Edwin Beckett, and J. Cheal.

Messrs. S. Spooner and Sons, Hounslow Nurseries, Middlesex, exhibited baskets of Apples in excellent condition, and making altogether a fine display. *Duchess Favourite* was brilliantly coloured, and *Williams' Favourite*, *Carlisle Castle*, *Peargood's Nonsuch*, *Okra* (beautifully coloured), *Castle Major*, *Goodenough's Nonsuch*, *The Queen*, *Wealthy*, *Grenadier*, and *Red Quarrenden* were all very good dishes. Silver-gilt Knightian medal.

Several Melons were exhibited from various sources, but no awards were made, the flavour in all cases being inferior.

Mr. W. J. Godfrey, Exmouth, Devon, showed a dish of Apples, and Mr. Charles Ross, Welford Park Garden, Newbury, showed a new Apple *Ruddy*, very richly coloured (*Ecklinville Seedling* x *Mère du Ménage*).

Mr. F. W. Rich, Royal Nurseries, Sandford, Churchill, sent Apple *Rich's Favourite*.

Messrs. Dickson and Robinson, Manchester, were awarded a gold medal for a splendid exhibit of Lettuce, comprising sixty-eight varieties, really a remarkable display. Among the new ones were *Little Gem*, a miniature *Cos* variety; *Lord Kitchener*, Cabbage, very large and tender; *Summer Staghorn*, much resembling *Endive*, a very pretty form; *Delicitation*, a fine large Cabbage variety. Other good ones were *Verdant Green*, the darkest coloured of any; *Giant*, *Champion White*, both *Cos* varieties; *Early Ohio*, *Marquis*, *Cazard*, *Golden Spotted*, beautifully marked with red; *Yearend*, *Iceberg*, *Hartwell*, *Rudolph's Favourite* of Cornwall, *Supreme*, *Immensa*, large brown *head*, *Buttercup*, a small yellow variety; *Large*, *Stubburnhead*, and *Unrivalled*. Of red ones, *Matador*, *Marvel*, *Continuity*, *Firstling*, and *Epicure* the best.

Mr. F. H. Randall, gardener to J. Watt Perkins, Biddisbury Lodge, Edgware, showed a new Runner Bean *Black Prince*, a cross between *Sutton's Tender* and *True and Carter's White Ear*, and although it appeared to be valuable no award was made.

Mr. G. Bow, gardener to the Dowager Countess of Harroby, High Ashurst, Dorking, showed a new seedling garden Pea called *Beau Ideal*.

Potato *Recompense* (a hybrid between *Beauty of Heaton* and *Champion* of Scotland, both good disease-resisting varieties) and *King's Autocrat* Pea were well shown by Mr. George King, East Hornden, Essex.

FUNGUS.

There were numerous exhibits of poisonous and edible fungi, but some of the cards were displaced, so that it was not possible in some cases to know who were the exhibitors.

A. Seth Smith, Esq., Silvermere, Cobham, Surrey (gardener, Mr. Quarterman), showed a collection of fungi both edible and poisonous. Among the former were *Fistulina hepatica*, small orange-red; *Amanita rubescens*, large pale brown; *Cantharellus cibarius*, yellow; *Paxillus involutus*, large dark brown; and others. Of poisonous fungi there were *Amanita nappa*, almost white; *Russula emetica*, bright red; and many others unnamed. The largest of all was *Polyporus betulinus*.

Mr. Willard, Holly Lodge, showed *Fomes australis*, a huge and extremely hard fungus from South America.

The collection shown by A. Clarke, Esq., and C. Croeland, Esq., F.L.S., secretary of the Mycological Society, Halifax, Yorks, comprised both edible and poisonous fungi in great variety of form and colouring.

Dr. H. Franklin Parsons, Oakhurst, 4, Park Hill Road, Croydon, and J. H. Holland, Esq., Dean House, Isle of Wight, included in their exhibits of fungi *Lactarius virescens* (almost black above and white below), *Agaricus elevatus* (large, dark brown), *Amanita rubescens* (purplish brown, large, chocolate colour beneath), *Paxillus atroventosus* (velvety brown above, yellowish brown beneath, large), *Fistulina hepatica* (the Vegetable Beef Steak, so called from its resemblance to that article of food), *Cantharellus cibarius* (of curious distorted growth, rich yellow), and numerous others. The great Puff Ball (*Lycoperdon bovista*), which is edible, is of huge size, white, marked with brown; the Horse Mushroom (*Agaricus arvensis*), a very large Mushroom; and *Leptota rachodes* (edible), of very elegant form, were other remarkable ones.

Carlton Rea, Esq., Worcester, also exhibited a collection of fungi, among them being *Russula cyanoxantha*, deep ruby-red, a delicious esculent, as well as many of those already mentioned.

J. F. Rayner, Esq., Highfield, Southampton; Thomas Bristow, Esq., Manfield Cottage, Primrose Hill, Tonbridge; and the Essex Field Club also showed collections of fungi.

FLORAL COMMITTEE.

Present: Messrs. W. Marshall (chairman), R. Dean, John Green, H. B. May, James Walker, Amos Perry, J. F. McLeod, W. Howe, G. Reuther, Charles Dixon, C. J. Satter, Charles Jeffries, K. W. Wallace, J. W. Barr, W. F. Thomas, K. H. Jenkins, W. J. James, Charles Blick, George Paul, H. J. Cutbush, George Gordon, Charles E. Pearson, and the Rev. F. Page Roberts.

From Messrs. William Bull and Sons, Chelsea, came many good things of stove plants and the like, and among them

Dracena Victoria, of which some half a dozen plants were shown, were extremely good. *Habenaria carnea* was very pretty, with pale flesh flowers above a dotted leafage. *Ceropegia Woodii* as a basket trailer was noteworthy, and, apart from these, *Palma*, *Ferns*, *Crotons*, and other such things were freely represented. Silver Flora medal.

The Fern group from Messrs. J. Hill and Son, Edmonton, was largely made up of *Gleichenias*, mostly well-grown examples. We noted *G. flabellata*, *G. semivestita*, *G. dicarpa*, *G. Spelunca*, and others. Several *Davallias* were shown, and the pretty *Asplenium cicutarium* was in fine form. Silver Flora medal.

Messrs. T. S. Ware, Limited, Feltham, showed a good lot of hardy things in many popular kinds. *Phloxes*, *Gladioli*, *Anaryllis Belladonna*, *Helianthi*, *Delphiniums*, *Sedum spectabile*, early *Asters*, *Lilium speciosum* in variety, and others were in great array; indeed, the group was a good one, and included the best in each set. *Romneya Coulteri* and *Iris hexagona* were notable plants, as also the herbaceous *Lobelia*. Silver-gilt Banksian medal.

Messrs. W. Wells and Co., Limited, Redhill, set up a group of early *Chrysanthemums* of good sorts. We noted *Carrie*, yellow; *Nellie*, yellow; *Parisiana*, *Esperana*, and *Mytchett Gem*, white; also *Champ de Neige*, *Polly*, bronze, with *Goucher's Crimson* being among the best. A large and valuable exhibit. Silver Banksian medal.

Mr. H. B. May, Edmonton, put up a fine batch of *Adiantum farleyense*, the plants ranging from small ones in 4-inch pots to large examples in 9-inch and 10-inch pots. Nicely set out, the plants displayed their full worth. Silver Banksian medal.

A group of *Nerines* in pots was shown by Baron H. Schröder, Englefield Green (gardener, Mr. H. Balaustine). The colour is most brilliant, and in the mass as shown the plants were extremely effective. Silver Flora medal.

The group of *Cannas* from Messrs. Cannell and Sons, Swanley, was certainly one of the finest exhibits on this occasion, the plants well grown and displaying large heads of bloom. It is not possible to enumerate so large a lot of sorts, but Mrs. Dreer, Miss B. Brunner, J. Van der School, Blazing Torch, and President Meyer appealed to us as very fine. Oscar Dennecker, a bronze-yellow, is very effective. Silver-gilt Banksian medal.

Messrs. Gunn and Sons, Market Hall, Birmingham, showed a large collection of cut *Phloxes*. *Etna*, *Syphilde*, *La Vogue*, pink; *Louis Mangir* and *Iris* being among the most distinct.

Messrs. Paul and Son, Cheshunt, showed *Anemones*, *Helianthus*, *Tritoma nobilis*, *Gaillardias*, and *Sanguisorba canadensis*; *Statice latifolia* was also good, and *Aster Mrs. Peters* is a pretty white Daisy.

Messrs. J. Cheal and Sons, Crawley, Sussex, showed *Cactus*, *Pompon*, and single *Dahlias* many fine forms were in the *Cactus* varieties: *Lord Roberts*, cream; *Uncle Tom*, maroon; *Vesta*, pink; *William Jowitt*, scarlet; *Richard Dean*, P. W. Tullock, salmon-red, bronze shaded, very fine; and *Columbine* were all good. The singles were charming. Silver-gilt Banksian medal.

Messrs. William Cutbush and Sons, Highgate, showed a fine bank of hardy things, such as *Phloxes*, *Tritomas*, *Eryngiums*, *Delphinium Belladonna*, *Montbretias*, *Aster ilicifolius*, *Pentstemon*, *Senecio pulcher*, *Cytisus Carleri*, early *Chrysanthemums*, *Eupatorium purpureum*, *Chelone obliqua*, *Polygonum amplexicaule*, *Phytolacca decandra*, being all noticeable. A very large and showy lot. *Hardy Heath* made a very pretty margin. Silver-gilt Banksian medal.

Above a groundwork of *Maidenhair Ferns* Messrs. Veitch and Sons, Limited, Chelsea, showed a very fine lot of *Nepenthes* or *Pitcher* plants, the greater portion superb specimens of these plants. The following were among those shown:

N. wrightiana, spotted; *N. mastersiana*, red pitchers; *N. Tivey*, very large pitchers, with broad green margin; *N. sanguinea*, *N. ventricosa*, with pitchers constricted in the middle; *N. Sir W. T. Threlton Dyer*, immense pitchers; *N. mixta*, *N. balfovia*, *N. picturata*, very handsome; *N. cylindrica*, small green pitchers; *N. Burkel*, *N. dicksoniana*, *N. formosa*, very freely pitchered; and *N. Curtisii* *Superba*, a very dark sort.

N. ampullaria vittata is a very small one; a most valuable and interesting lot. Gold medal.

Messrs. Veitch also showed some valuable *Climbers*, *Actinidia chinensis* and *Smilax aspera sagittifolia*.

Dahlias in variety were shown by Mr. Stredwick, St. Leonards-on-Sea, and by Mr. Chas. Turner, Slough. Mr. Shoemith also contributed to this group of popular plants.

NEW PLANTS.

The following received an award of merit:

Smilax (aspera) sagittifolia.—One of the most beautiful of the true *Smilax*. The glossy leaves are in the form of the old flint arrow-head, yet more bluntly pointed. It will prove a valuable plant for rustic poles, pergolas, and similar work. The exhibited example was some 8 feet high. Shown by Messrs. Veitch and Sons, Chelsea.

Senecio tanguticus.—To the few species now grown in gardens for their ornamental foliage rather than for any merit in flowering this Japanese plant will prove a valuable addition. The small, yellow, starry-shaped blossoms are abundantly produced in large pyramidal panicles on stems about 5 feet high. The foliage is exceedingly ornamental, the divisions of the palmately-lobed leaves deeply cut into segments, thus producing a very elegant effect. In the border or in good isolated positions on the lawn this will prove a most useful subject. Shown by Messrs. Veitch and Sons, Limited, Chelsea.

Sidalcea Rosey Gem.—It is highly probable this is of hybrid origin, the flowers shown not being in agreement with the typical examples known. The chief value of the plant is the deep rose-coloured flowers. These are as large as a florin, and profusely borne on stems 3½ feet high. Quite a choice autumn-flowering perennial. Shown by Messrs. T. S. Ware, Limited, Feltham.

The following *Dahlias* also received awards of merit: *Rose Bank Scarlet* (Single).—A shapely flower of a rather intense deep scarlet shade. Shown by Mr. Edward Mawley, Berkhamstead.

Darkness (Single).—A finely-formed flower of rich crimson-maroon. Shown by Messrs. J. Cheal and Sons, Crawley.

Princess of Wales (Single).—This is an exceptionally choice, well-formed flower; indeed, a perfect circle, the well-moulded petals being of a rosy mauve shade, and very attractive. From Messrs. J. Cheal and Sons, Crawley.

Dainty (Cactus).—A pink-shaded variety, the base of the florets of a yellow tinge.

Sweet Nell (Cactus).—Rose-pink, with mauve shading and rather white centre. Both from Messrs. Green and Co., Limited, Dereham.

Mrs. H. L. Broussan (Cactus).—Pale orange, the florets very long and shapely.

Geo. Gordon (Cactus).—Yellow and fawn.

Miss F. M. Stredwick.—A large creamy white flower. The above trio were from Messrs. J. Stredwick and Son, St. Leonards-on-Sea.

Queen of Whites (Pompon).—A neat, attractive flower of snowy whiteness. From Mr. Chas. Turner, Royal Nurseries, Slough.

San Toy (Pompon).—A medium-sized flower, the tips of the florets of a purplish magenta, and the base white. From Mr. Chas. Turner, Royal Nurseries, Slough.

LECTURE ON EDIBLE FUNGI.

Dr. M. C. Cooke, M.A., V.M.H., gave a lecture upon this subject to an exceptionally large and appreciative audience. Most people, said Dr. Cooke, seem to think there are but three edible fungi, the *Agarics*, *Truffles*, and *Puff Balls*, but these he regarded as types of edible fungi. There were numerous ones belonging to the true Mushroom tribe. Most important is the common Mushroom. This is the only fungus whose spores can be made to germinate under artificial conditions. There is no known method of culture that will succeed except in the case of the common Mushroom. If we only knew how the spores of the various edible fungi germinated we might cultivate many others besides the common Mushroom. Dr. Cooke said he had eaten some eighty species of edible fungi, but the number of species growing wild in this country that would be worth the trouble of culture is comparatively small. The common Mushroom is found almost all over the world; in North-West India it is regarded as a good article of food by the tribes. The question as to whether the wild or the cultivated Mushroom is better flavoured is debatable. Dr. Cooke thought that often Mushrooms were spoiled by bad cooking. The sooner they are cooked after being gathered the better. The common Mushroom varies a lot; there is a variety called *Pratense*, with pink gills, this and another are regarded as species in Italy, where they are indigenous. Two other varieties were mentioned, one of which is usually, if not solely, found growing in coal.

The *Horse Mushroom* (*Agaricus arvensis*) the lecturer found to be delicious. It came up in his London garden for three years in succession, but then disappeared. It differs from the common Mushroom in having gills of a dirty white colour; it is also larger, often 10 inches across. It is found in meadows, and in the country is collected for making ketchup. For this purpose it is superior to the common Mushroom.

The *Bleeding Mushroom*, a dirty clay colour with rosy purple gills, and *St. George's Mushroom* (so called because of its appearance about that day), with white gills and no ring on the stem, were also mentioned. The latter is valuable by reason of its appearing at a time when Mushrooms are scarce. The *Blewits* resemble *St. George's* Mushroom, but have a violet-blue tinge. They are found in pastures.

The *Blue Caps* are found on dead leaves and also on rubbish heaps. When young they are of a violet-blue colour. They are some 3 inches or 4 inches wide, and found in summer and early autumn. The *Dusky Caps* are found also on dead leaves. They are sometimes 5 inches or 6 inches across, usually 3 inches or 4 inches, and of a grey colour. The flesh is thick and firm. The *Parasol Mushroom* is of a dirty white colour. The stem is from 8 inches to 12 inches high, and about half an inch thick, larger at the base. Its general appearance suggests the popular name. The *Shaggy Caps* are black-spored *Agarics*, few of which are edible. They are found in waste places, and should be eaten as soon as gathered. Sometimes they are found among bricks and mortar.

The *Chantarelle*, a small bright yellow fungus, some 2 inches across, has been overrated. It has a strong odour of ripe apricots. Found in woods in September and October. It is eaten regularly on the Continent. The *Champignon*, though small, has a great reputation, though it does not rival the common Mushroom. It is about 1 inch across, convex at first, becoming flat later, with broad creamy white gills. It is common in pastures. When dried it is used for flavouring, and then has no equal.

The edible *Boletus* has the external form of the *Agaric*, but underneath is a mass of long slender tubes instead of gills. These tubes contain the spores. It is not appreciated at home as an esculent. It is orange-brown above and greenish beneath. Abroad, and also in Soho, it is, when dried, used for flavouring soup.

The *Morel*, which on the Continent is dried and may be bought per pound, was next mentioned. The *Tree Cap* *Morel* which is smaller, and Smith's *Morel*, that grows 1 foot high and is only found in Britain, are others. *Helvella*, used as a substitute for the *Morel*, can be preserved for winter use. It is, however, scarce. The *Great Puff Ball*, often as large as a man's head, has no gills; the interior is spore-bearing. It changes colour gradually from white to snuff-brown. It should be eaten when young, before it begins to change colour. In conclusion, Dr. Cooke said that in judging edible fungi the common Mushroom must not be taken as a type of flavour; others have a flavour that is quite peculiar.

Several questions were asked by members of the audience, and in reply to one enquiry Dr. Cooke said that Mushrooms, if not eaten as soon as gathered, may become poisonous, especially to some persons. Certain people are much more easily affected than others. One visitor expressed the hope that when the lecture appeared in the *Society's Journal* the diagrams (of which many excellent ones were on view) would be reproduced also, and in colour. Dr. Cooke was accorded a hearty vote of thanks.

LONDON DAHLIA UNION.

THE annual exhibition was held on Wednesday and Thursday last in the Prince's Hall, Earl's Court, and, despite the recent storm, that had played havoc with many growers' plants, an excellent display resulted. Mr. R. Dean had



IN THE CONSERVATORY IN BARON ROTHSCHILD'S GARDEN AT VIENNA.

Roses from Messrs. Jeffries and Son, Cirencester, were superb, and some half-dozen boxes were staged. Some of the best were *Comte de Rainbaud*, *Ulrich Brunner*, *Maman Cochet*, *A. K. Williams*, *Killarney*, *The Bride*, *Marie Verdier*, *Medes*, &c. As a batch of outdoor Roses these were very fine. Silver-gilt Flora medal.

Messrs. Dobbie and Co., Rothesay, showed a remarkable collection of *Fuchsias* in the cut state. Single and double ones were fully represented, and in all the leading sorts.

Messrs. Wallace and Co., Colchester, showed *Colchicums*, *Gladioli*, *Kniphofias*, *Lilium speciosum* *Kretzeri*, *L. auratum* *vitatum*, *Pentstemons*, *Montbretias*, and *Lilium Henryi*. *Sternbergia lutea* major was very fine, and possibly the finest plant shown was *Gladiolus Princeps*, very large and brilliant in colour. *Lilium tigrinum* in variety and a grand form of *L. speciosum cruentum* were also in the group. Silver-gilt Banksian medal.

Mr. A. L. Gwillim, Eltham, Kent, staged a very showy lot of *Begonias*, single and double, in many shades of colour. The crimson and red shades were especially good, while those of salmon hue were among the largest we have seen. Soine a lot fully demonstrates the value of a high-class strain of seedlings. Silver Flora medal.

Messrs. Barr and Sons, Covent Garden, showed hardy flowers and early bulbs, as *Colchicums* &c. *Japan Anemones* and *Kniphofia Corallina* and *Superba* were also in this group. A few *Water Lilies* in the cut state were noted, but these were not fully open. *Actaea alba* was interesting in fruit. *Montbretias* and *Scabiosa caucasica* were also in good form. Bronze Flora medal.

Mr. B. Ladhams, Shirley, had a good group of showy perennials, *Gladiolus Genuis*, *Zanzelsenia*, *Aster Amellus*, *Ceropegia*, *Acanthus*, and a few early *Michaelmas Daisies*. *Gaillardias* were in grand array and very finely shown. Bronze Flora medal.

arranged for the sides of the hall to be partially draped, and the effect of the display was much enhanced on that account.

Mr. M. V. Seale, Vine Nurseries, Sevenoaks, was first for the best display of Cactus Dahlias upon a table with a handsome exhibit. There were no more entries.

Mr. Stephen Walker, Thame, Oxon, was first for three vases of Cactus Dahlias; Messrs. J. Burrell and Co., Cambridge, second; and Messrs. Keynes, Williams, and Co., Salisbury, third.

Messrs. Keynes, Williams, and Co., Salisbury, were first for six bunches of Pompon Cactus Dahlias, with some very pretty miniature flowers; Mr. Seale, Sevenoaks, second; and Messrs. Burrell and Co. third.

SHOW AND FANCY.

Twenty-four blooms, distinct (open): Mr. Walker, Thame, Oxon, was first with a remarkably bright collection of good blooms; Mr. Charles Turner was a very close second; and Mr. S. Mortimer, Farnham, third. There were several more entries.

Twelve blooms, distinct (open): First, Messrs. J. Cheal and Sons, Crawley, who showed a very bright lot; second, Mr. J. R. Tranter, Henley-on-Thames; third, Messrs. J. Taylor and Sons, Chipping Norton.

Twelve blooms, distinct (amateurs): First, Mr. T. Anstiss, Brill, Thame; Mr. W. Peters, gardener to Miss Penrhyn, Hothamstead, St. Leonards, was second, with uneven, badly staged flowers.

Six blooms, distinct (amateurs): First, Mr. E. West, Junior, The Laurels, Frieth, Henley, with excellent flowers; second, Mr. J. Findley, Kingham, Oxon; third, Mr. W. Wheeler, 14, Hop Gardens, Henley-on-Thames.

CACTUS DAHLIAS.

Twelve varieties in bunches of six blooms (open): First, Messrs. J. Stredwick and Son, Silverhill Park, St. Leonards, with a lovely lot. Mrs. Mawley, yellow, Pearl, rich pink, and Ivanhoe, old gold, were perhaps the very best. Second, Messrs. J. Burrell and Co., Cambridge, also with an excellent display. Violette, rich glowing rose-purple, and J. W. Wilkinson were splendid. Mr. J. Walker, Thame, Oxon, was third, and Messrs. Cheal and Sons, Crawley, fourth. This was a very good class.

Twenty-four blooms, distinct (on boards, open): First, Messrs. J. Burrell and Co., Cambridge, with a very even exhibit of good quality—a beautiful lot; second, Messrs. J. Stredwick and Son, St. Leonards; third, Messrs. Keynes, Williams, and Co., Salisbury. There were several more competitors.

Twelve blooms, distinct (on boards, open): First, Mr. M. V. Seale, Sevenoaks, with a very pretty stand; second, Messrs. J. Stredwick and Son, St. Leonards; third, Messrs. Keynes, Williams, and Co., Salisbury.

Nine varieties in bunches of three blooms (amateurs). The Hobbies Challenge Cup is given with the first prize. Mr. H. A. Needs, Heath View, Horsell, Woking, was first. Lady Colin Campbell (new seedling, light yellow) was perhaps the best of a good lot. Mr. W. Peters, gardener to Miss Penrhyn, Hothamstead, St. Leonards, was second, and also showed very well.

Six varieties (in bunches, amateurs): First, Mr. M. H. Brown, Luton, Beds; second, Mr. Edward Mawley, Berkhamsted; third, Mr. W. C. Pagram, gardener to J. Courtney, Esq., The Whim, Weybridge.

Twelve blooms, distinct (on boards, amateurs): First, Mr. H. A. Needs, Horsell, with some characteristic flowers; second, Mr. William Stephens, Spring Grove, Isleworth; third, Mr. H. Brown, Luton.

Six blooms, distinct (on boards, amateurs): First, Mr. E. West, Jun., Frieth; second, Mr. Edward Mawley; third, Mr. W. C. Pagram, The Whim Gardens, Weybridge.

Mr. H. A. Needs was first for one vase of twelve blooms of Cactus Dahlias, and Mr. M. V. Seale won for three vases, both open classes.

In the open class for six blooms of one Cactus variety, Mr. Walker, Thame, Oxon, was first, with a grand exhibit of Mrs. E. Mawley; Messrs. Keynes, Williams, and Co., Salisbury, were second, showing a seedling called J. Bryant; Mr. H. Shoosmith, Westfield, Woking, was third, with Nelly.

POMPON VARIETIES.

Twelve varieties in bunches of sixteen blooms (open): First, Mr. Charles Turner, with a delightful exhibit. Minnie, apricot-orange; Darkest of All, almost black; Nerissa, rose pink; San Toy, the white petals heavily tipped with crimson-purple, were very choice. Mr. Walker, Thame, was second, and Messrs. Burrell and Co., Cambridge, were third.

Six varieties in bunches of six blooms (amateurs): First, Mr. J. F. Hudson, Gunnersbury House, Acton; second, Mr. M. H. Brown, Luton; third, Mr. W. C. Pagram.

SINGLE DAHLIAS.

Twelve varieties in bunches of six blooms (open): First, Messrs. J. Cheal and Sons, Crawley, with a splendid exhibit, the blooms most brilliantly coloured. Miss Morland, deep red, and Hilda, blush and yellow, were of the best. Second, Mr. M. V. Seale, Sevenoaks; third, Mr. Stephen Walker, Thame, Oxon.

NON-COMPETITIVE EXHIBITS.

Messrs. J. Burrell and Co., Howe House Nurseries, Cambridge, made a wonderful display with spikes of Gladioli, filling half one side of the hall.

Hobbies, Limited, Dereham, filled the other half with a grand display of Cactus Dahlias and Roses.

Messrs. S. Spooner and Sons, Hounslow, showed a table of hardy fruit, Apples chiefly, and these were in the best condition.

Messrs. W. Cutbush and Son, Highgate, N., had an attractive exhibit of Cactus Dahlias.

Mr. Eric Such, Maidenhead, showed hardy flowers in variety.

Messrs. T. S. Ware, Limited, Feltham, exhibited an excellent display of Cactus Dahlias that included several promising new ones.

Messrs. H. Cannell and Sons, Swanley, Kent, showed a large number of Cactus Dahlias in bunches.

Messrs. Dobbie and Co. also sent an extensive display of Dahlias, Cactus, Pompon, and single varieties, from their Rothsay nursery.

NEW DAHLIAS.

Certificates of merit were given to

CACTUS VARIETIES.

From Messrs. J. Stredwick and Son.—Mrs. H. L. Brousson, Ella Kraemar, and Pearl.

From Messrs. J. Burrell and Co.—Premier, Lauretta.

From L. McKenna, Esq., The Honeys, Waltham St. Lawrence, Berks.—Dorothy.

From Mr. W. Baxter, Woking.—Lady Colin Campbell.

From Hobbies, Limited.—Dainty and Sweet Nell.

SINGLES.

From Mr. M. V. Seale.—Bessie.

From Messrs. J. Cheal and Sons.—Darkness and Princess of Wales.

POMPONS.

From Mr. Charles Turner, Slough.—San Toy, Silvia, and Queen of Whites.

SHOW.

From Mr. S. Mortimer, Farnham, Surrey.—Bloodhound.

Messrs. Burrell of Cambridge were given certificates of merit for Gladioli Kathleen Grahame and Jessie Dean, and Mr. W. Seward, Hanwell, for Tomato Hanwell Victory.

UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

The monthly committee meeting of this society was held at the Caledonian Hotel, Adelphi Terrace, Strand, on Monday evening last. Mr. Charles H. Curtis in the chair. Four new members were elected, and four members were reported on the sick fund.

OBITUARY.

FREDERICK LAW OLMSTED.

THE death is reported from Boston of Mr. Frederick Law Olmsted, the eminent landscape architect of America. Mr. Olmsted was born in Hartford, Connecticut, on April 22, 1822. He received his education from the ministers of successive parishes, into whose houses he was taken for months at a time. From his earliest years he was a wanderer. He first settled down upon a farm with rough surroundings at Saybrook, New York, on Long Island Sound. However, he soon removed to better land on Slater Island, where he came into contact with Calvert Vaux, a young English architect, with whom, in later days, he formed a business partnership. In 1851 he made a trip to England, which brought forth his first book, "Walks and Talks of an American Farmer in England." By this time, somewhat late in life, he had begun to give attention to landscape work. He took a tour through the older states of the South, and wrote a series of letters which, when published in book form as "A Journey in the Seaboard Slave States," was recognised as the fairest description of the conditions surrounding slavery that had then appeared. This was followed by "A Journey through Texas," and "A Journey in the Back Country." In 1856, by a happy chance, he met one of the commissioners of the new Central Park in New York, then just authorised by the Legislature. He was chosen superintendent, and in conjunction with Mr. Vaux proposed the plan which, in competition with more than thirty others, won the first prize. This was practically the first attempt in America to apply art to the improvement or embellishment of Nature in a public park. The work was done in such a satisfactory way that it was followed by plans for many other parks, and ultimately he was entrusted with the design and development of the landscape features of the Columbian Exhibition at Chicago in 1893. Working actively to the last, Mr. Olmsted was a frequent visitor to England, and recognised his obligations to this country.

ANSWERS TO CORRESPONDENTS.

Names of plants.—L. C. F.—Isoloma hirsutum.—Miss Forster (Penrith).—Dimorphotheca Eeklonia.—W. Silcock.—1, Dactylis glomerata variegata; 2, Picris hieracioides (British); 3, the Rose is Mme. Alfred Carrière; 4, an old Bourbon, Marquise Balbano.

Pond weed (H. M. R.).—Is the weed a scum or one of the numerous side or bottom clinging weeds? In the majority of instances such weeds come in the water and, indeed, are part of it, having their season of growth as all other plants. The only remedy is periodical clearing, especially where the pond is for the most part stagnant water.

Lime trees and salt water (A. RILEY).—We should very much doubt whether Limes would thrive under the conditions described.

Naturalising cottage Tulips (SYBIL).—Yes, it is quite possible to naturalise these if your soil is good and the grass not too rank in growth. Of May-flowering Tulips that we can recommend for this purpose we would name Aximenes, Bouton d'Or, Billietiana and its vars., Cornua, Didieri, elegans, most of the Gesners, Macropsia, Maculata, Sweet Nancy, and La Merveille. All these varieties flower freely from very small bulbs, hence they are more likely to thrive under a certain amount of neglect in cultivation. You could grow most of the Darwins in such places, but their flowers will not be large, and they are not likely to last quite so long as the varieties noted, as they require good cultivation for their full development. You could plant these in a richer soil and stronger-growing Grasses—places not so suitable for the others.

Shrubs for seaside (REV. DENIS KNOX).—Shrubs most likely to succeed under the conditions named are Atriplex Halimulus (Sea Purslane); Barberries of sorts, particularly Aquifolium, Darwini, dulcis, and stenophylla; Cotoneaster arborescens (Bladder Senna); Cotoneasters of sorts; Cytisus (Broom), various, especially albus, praecox, and scoparius, in variety; Eimagnus of sorts; Eucynimus europaeus and the evergreen E. japonicus; Hammodendron argenteum (Siberian Salt Tree); Hippophae rhamnoides (Sea Buckthorn); Lychnis barbarum and L. europaeum (Box Thorn); Rosa, many members of the Rose family, particularly Rosa rubiginosa (Sweet Briar) and the Japanese Rosa rugosa; Rubus (Ramble), the double-flowered and cut-leaved forms are very ornamental. Salix (Willow) of sorts; Spartium juncaceum (Spanish Broom); Tamarix gallica and T. tetraedra; Ulex (Furze) of sorts. All the above will grow in ordinary soil, hence it is not necessary to mix up artificial compost for them provided the natural soil is fairly good. It should be well dug, and the shrubs planted firmly therein, securing them if necessary to a stake, as plants that sway about with the wind will never flourish.

Peach trees not fruiting (G. N.).—Our correspondent has recently succeeded to the charge of some young Peach trees planted in a cold house, which have grown strongly and freely, but have as yet borne no fruit. Under these circumstances his efforts have been directed to the sensible and correct practice of thinning out the lateral and all useless growth, with the object of exposing the fruit-bearing shoots to the greater influence of heat, light, and air. Added to this our correspondent proposes to lift and root prune the trees this autumn, in order by this means to check their over luxuriance of growth next year, thereby bringing about more fruitful conditions. So far we think our correspondent's efforts have been directed on sound lines. Now a trifling "large and varied experience" steps in and advises our correspondent to submit his trees to a sort of roasting treatment, by advising that the house should be closed at 10 a.m., and no air admitted until the evening, let the weather be as hot as it may. This is a new departure in our experience of ripening the wood of fruit trees. Warmth, of course, is essential, and this should be secured by all means while the trees are in active growth, but a free current of air both by day and by night is quite as important, and by the exercise of judgment and care in the matter of ventilation the benefits of both may be secured, and therefore we advise that the friend's advice be disregarded, and the influence of both heat and a free circulation of air be taken advantage of. In root pruning we advise that the tap and other strong roots should be laid down horizontally, nearly their full length, with the points pointing upwards, instead of cutting them back too severely. By adopting this method more fibrous roots are formed near the surface, and far better results obtained. Immature wood is always more or less weak and the flowers short of pollen, as well as sparsely produced, therefore special attention must be given to fertilising the flowers in spring.

TRADE NOTE.

A PUMICE-STONE SOAP.

THOSE who have anything to do with gathering, preserving, or, in fact, handling fruit in any way, know well how difficult it is sometimes to remove the stains from the hands. One may scrub with ordinary soap until one is tired without effectually removing fruit stains, and many object to using pumice-stone and the old-fashioned sand-balls. The advent of the Pumice-stone Soap will, therefore, be hailed with delight. Messrs. Osborne, Bauer and Cheeseman, 19, Golden Square, Regent Street, London, are the manufacturers of this new soap, and we can testify to its usefulness for removing fruit and other stains from the skin. While perfectly agreeable to use, and free from harshness, it removes the stains most effectually.

CATALOGUES RECEIVED.

Carnations.—Messrs. Chibran, Altrincham, and W. Watson and Sons, Clontarf Nurseries, Dublin.

Daffodils.—Messrs. Barr and Sons, King Street, Covent Garden, W.C.

Our Bulb Number.—The next issue of THE GARDEN, dated September 26, will be largely devoted to the reasonable subject of bulbs and bulb culture. The monograph of the Tulips will be concluded, and there will be articles upon "Hyacinth Culture in England," "Some Greenhouse Bulbs," "Transplanting Narcissi," "Autumn Crocuses," &c., and Mr. Melville will write about Snowdrops.

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THE GARDEN

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[SEPTEMBER 26, 1903.]

GARDENING IN TOWN AND CITY TENEMENTS.

As a means to the amelioration and improvement of the moral, physical, and general well-being of the industrial poor of England, the value of the garden has, we think, been long unrecognised by those in authority. Gardening is capable of lending as powerful assistance in this direction as any agency a reformer can summon to his help. As education and civilisation have advanced, gardening in one form or another has ministered to the elevation and the highest enjoyment of all who have been able to indulge in it. In no country in the world has advantage been taken more liberally of the potentialities of gardening in this way than in England. Take away the gardens of the rich in this country and they would be deprived of a valued enjoyment. It is the same with our business men and women living in the suburbs of large towns and cities. A house without a garden surrounding it is hardly to be seen. Indeed, it would be impossible to find a tenant for a house not so adorned. It is good to witness the interest taken by business men in the small gardens surrounding their homes. Many of these are at the present time aglow with the rich autumn colouring of creepers and hardy border flowers. What gives real interest and pleasure to the possessors of these gardens above all other things is the fact that in most cases the work of planting and tending has been a labour of love undertaken by the householders and their families. Take away their gardens, and one of the chief pleasures of life will be extinguished in thousands of homes in England.

Seeing then that the garden is capable of bringing so much solace and joy to the hearts of the rich and well to do, may we not conclude that it is equally potent in helping in a proportionate degree to elevate the lives and pleasures of the poor when they are brought under its influence? The poor, living in our congested courts and flats, are totally shut out from sharing in this the purest of human pleasures. May it not be said that the absence of flowers among so much that is repellent and gloomy is responsible in some measure at least for the misery, squalor, and despair with which the lives of the poor are often blighted. Our great municipalities of late years have been generous in providing public parks and gardens, and in planting and making them

beautiful, but these are enjoyed chiefly by the well to do and better class artisan. Moreover, the pleasure of seeing a garden planted and tended by other hands is infinitely less than is that experienced from one's own garden, however small or humble it may be. Much has no doubt been done of late years in improving the home surroundings of our workers by building cottages and gardens in the country, and by providing cheap and expeditious means of travel, but after all that has been done or can be done in the future, millions of the industrial poor will be compelled by the nature of their duties to inhabit city tenements. It will naturally be asked what can gardening do to help to brighten and interest the lives of men and women living under such conditions, where the atmosphere is so charged with impurities, and where the light of the sun scarcely ever penetrates.

Great things in the way of gardening cannot, of course, be done, but hundreds of beautiful flowers may be grown in the many nooks and corners of such homes. It would take too long to enumerate now the many plants suitable to this purpose. We are content with drawing attention to a subject so fraught with possibilities for good to our working poor, and were such a project once started and a committee organised to carry it out, we doubt not many of our readers would render willing help in pointing out suitable plants for such positions, and even help by the gift of surplus ones. Once secure the interest of the workers in the culture of flowers at their homes, the influence would soon spread, and become before long a powerful instrument for good in weaning the workers and their families away from other undesirable and often debasing recreation.

THE EDITOR'S TABLE.

We invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London.

A NEW GEUM.

I herewith send you a few flowers of my new Geum Heldreichi superba. This is one of the best new hardy plants introduced during the last two

or three years. It is now in full flower with me, and will remain so until the frost sets in. It has been flowering since the first week in May, and is of a pretty, neat habit, with flower-stems well thrown up above the foliage and lasting some time cut, and its delightful colour will make it a very popular plant.

Aster Perry's White is probably the finest white Aster up to date. It is quite distinct with its pretty loose petals, reminding one of a Japanese Chrysanthemum. It is of a pretty, neat, erect habit.

Aster Elsie Perry is a charming pink variety. It is a seedling I raised here some three or four years ago, and which received an award of merit at a meeting of the Royal Horticultural Society last year. The flower is a clear rosy pink, far ahead of anything yet introduced. I also enclose a few flowers of my new double pink Aster.—AMOS PERRY, Winchmore Hill.

HARDY FLOWERS FROM MAIDSTONE.

Mr. George Bunyard has sent a gathering of hardy flowers in great variety from his Maidstone nurseries. They serve to show what a wealth of material is within reach of the gardener, and how much better off he is now than a few years ago. There would seem to be little excuse for not having a bright border of hardy flowers with so many good things to select from. Among the collection sent by Mr. Bunyard were *Clematis Ville de Lyon*, *Montbretia elegans*, *Rudbeckia Autumn Glory*, *R. Golden Glow*, hardy *Fuchsia* *Mme. Comelison*, *Helianthus mollis*, *H. Bouquet d'Or*, *Anemone japonica Reine Charlotte*, *A. elegantissima*, *Aster Edna Mercia*, *A. Daisy Peters*, *Eupatorium ageratoides*, *Senecio pulcher*, *Clethra tomentosa*, *Spiraea canadensis*, *Clematis davidiana*, *Tritoma H. Cannell*, *T. nobilis*, *T. Pfitzeri*, *T. Leda*, *Delphinium Faust*, *Harpalum rigidum Miss Mellish*, *Ceanothus Gloire de Versailles*, *Clethra paniculata*, *Spiraea Reevesii*, *S. callosa nana rubra*, *Hypericum oblongifolium*, and *Cistus nigrescens*.

KEW NOTES.

INTERESTING PLANTS IN FLOWER.

Temperate House.

ACACIA LINEARIS, *A. spadicigera*, *Chironia linoides*, *Grevillea thelemanniana*, *Hedychium gardnerianum*, *Hibiscus Huegelii*, and *Pitcairnia ferruginea*.

Water Lily House.

Clerodendron speciosum, *Sanchezia nobilis*. Among the ornamental Gourds in fruit the following are the most conspicuous: *Lagenaria enormis*, *L. leucantha* var. *longis*, *L. longissima*, *L. vulgaris*, *Momordica cochinchinensis*, *Trichosanthes Anguina*, and *T. subvelutina*.

Orchid Houses.

Calanthe madagascariensis, *Coryanthes macrantha*, *Cypripedium Charlesworthii*, *C. croesianum*, *C. spicerianum*, *Dendrobium cassiope*, *D. formosum* var. *giganteum*, *D. Phalenopsis*, *D. thyrsiflorum*, *Dipodium pictum*, *Epidendrum inversum*, *E. vitellinum majus*, *Eria aridostachya*, *Habenaria carnea*, *Laelia elegans*, *L. pumila* var. *praestans*, *Masdevallia Chimera*, *M. nidifica*, *Miltonia*

Clowesii, M. cuneata, M. Regnelli, Neobenthamia gracilis, Odontoglossum grande, Oncidium Forbesii, Polystachya odorata, Selenipedium calurum, Stanhopea Wardii, Stelis discolor, Stenoglottis longifolia, Vanda cœrulea, and Zygopetalum cochleare.

T Range.

Allamanda violacea, Clerodendron splendens, Kleinia Galpini, Lindenbergia grandiflora, Meme-cylon floribundum, Nerine Fothergilli var. major, and Pavetta cafra.

Greenhouse.

Among other things the following are conspicuous: Abutilon Golden Fleece, Begonia evansiana, Bouvardias in variety, Cannas in variety, Fuchsia simplicicaulis, Lantana salvifolia, Salvia splendens, and Tibouchina macrantha.

Herbaceous Borders.

Asters, Sunflowers, and Solidagos in variety, Kniphofia breviflora, K. comosa, K. Tysoni, and others, Lilium sulphureum, and numerous other things.

Water Lily Pond.

Zizania aquatica.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

September 29.—Royal Horticultural Society's Fruit and Vegetable Show at Chiswick (three days); Gardeners' Dinner, Holborn Restaurant. Reception, 6.30. Dinner, 7.

October 6.—National Chrysanthemum Society's Exhibition (three days).

October 13.—Royal Horticultural Society's Drill Hall Meeting.

October 14.—East Anglian Horticultural Club Meeting.

October 27.—Royal Horticultural Society's Drill Hall Meeting.

The gardeners' dinner committee. With this issue of THE GARDEN is published a supplement containing portraits of members of the committee responsible for the arrangements in connexion with the great reception and dinner to be offered to between 400 and 500 British gardeners on Tuesday next, September 29, at the Holborn Restaurant, London. A melancholy interest attaches to the publication of this supplement, for while it is being prepared comes the news of the death of Mr. James Smith, head gardener to Lord Rosebery at Mentmore, a member of the committee. Mr. Smith was one of the best known and most widely respected of British gardeners.

Royal Horticultural Society.—**Fruit and vegetable show at Chiswick.**—The Royal Horticultural Society will hold an exhibition of British-grown fruits and vegetables in their gardens at Chiswick on September 29, 30, and October 1. A conference on Vegetables will be held on Tuesday next, 29th inst., at 2.30 p.m., Mr. George Bunyard, V.M.H., in the chair. The following gentlemen have been asked to read papers: 1. "On Cooking Vegetables," Dr. Bonavia and Mr. James Hudson, V.M.H.; 2. "On Vegetables all the Year Round for a Private Family," Mr. W. H. Divers; 3. "On Vegetables for Exhibition," Mr. Edwin Beckett; 4. "On Vegetables for Market," Mr. W. Poupart. The exhibition will open at 12 noon on the 29th inst., and at 10 a.m. on the two following days, closing at 6 p.m. Fellows of the society, on showing their tickets at the entrance, will be admitted free, and the public on payment of 2s.6d. on the first day, and 1s. on the second and third days. At a general meeting of the Royal Horticultural Society, held on Tuesday, the 15th inst., twenty-four new Fellows were elected, making a total of 1,141 elected since the beginning of the present year.

The gardeners' reception and dinner.—Please permit me to use your generous columns just once more to mention a few things of interest. Seats at the dinner will not be according to the numbers on the tickets. All speakers and distinguished visitors will be seated at the long table, with a chairman or with a vice-chairman

at the ends of the nine other tables, and those specially asking for places will, so far as is practicable, have them allotted. A large plan of the tables with these names will be found in the reception room—one of great dimensions. There friends can meet and make up their own parties to sit together. The smaller the parties the more readily will they find seats. There are large cloak rooms near the entrance, and every holder of a ticket will at once pass up into the reception room, handing in his name card at the door. All should come with these cards legibly filled in, as it is desired to preserve them. The dinner entrance to the Holborn Restaurant is in Newton Street, a little way down from Holborn on the left hand. Newton Street is exactly opposite the British Museum Station of the Tube railway. Mr. Jacques, Pound Street, Wendover, is chairman of the dinner or seating committee. All speakers to the respective toasts are respectfully asked to be very short in their remarks. The programme is a long one, but if speeches be brief can be well got through in good time. Only paid tickets can admit. All ticket remittances should be immediate to prevent disappointment. It is hoped that everyone will preserve their programmes as pleasant souvenirs of a delightful social gathering.—A. DEAN.

Grapes at the Edinburgh show.—"Competitor in the six bunch class," writes: "In your report of the Grape classes at the recent Edinburgh show you say that Mr. Goodacre did not stage in the six bunch class—the principal one. This is an error, as he did. He did not get placed, however, and this perhaps may have led your reporter to overlook his exhibit. It is only fair to us and the other competitors in this class to make this known, seeing that a Shrewsbury champion is not an ordinary competitor."

Mr. W. B. Latham.—With reference to the testimonial and complimentary dinner to Mr. Latham upon his retirement from the Birmingham Botanic Gardens, Mr. J. Hughes, who is acting as honorary secretary, writes: "At a general meeting of subscribers held at the Athletic Institute, John Bright Street, Birmingham, on Monday evening, September 14, after much consideration it was decided that it was advisable to postpone the dinner from September 24 (as originally fixed) to October 22, in order that his many friends at a distance may have an opportunity of showing their appreciation of his many kindnesses and life-long service to horticulture. Mr. Owen Thomas, 25, Waldeck Road, West Ealing, W., who has kindly promised to preside at the dinner and present the testimonial, will be glad to receive subscriptions, or they may be sent direct to the secretary."

Chrysanthemum feast at Tamworth.—This takes place to-day (Saturday, September 26), and owing to the fine condition of the plants this season it promises to be of more than ordinary interest. There is to be a display of early-flowering Chrysanthemums in competition for a handsome silver vase, and several medals of varying degrees of merit are also to be competed for. Mr. William Sydenham has generously proposed to throw open his grounds at Bolehall House for this purpose, making a slight charge for the benefit of certain charities. His extensive trial of early-flowering Chrysanthemums, which embrace varieties collected from every conceivable source, and which include all the newer as well as the older varieties in commerce, will be open for inspection. From recently acquired information it is understood this collection of plants is now in fine form and condition, and well worth a visit. The grounds are within eight minutes of the Tamworth Station of the London and North-Western and Midland Railways. During the afternoon Mr. D. B. Crane has consented to read a paper on the subject of "Early-flowering Chrysanthemums."

A new Hybrid Tea Rose (Earl of Warwick).—One occasionally comes across something exceptionally good, and when one does it is well to make a note of it, even if, as in this particular instance, it cannot at the moment be obtained. This new Rose is not yet in commerce, but it will when introduced be much sought after

and appreciated. It has all the good points the Rose should have. It is free-flowering, delicately scented, of vigorous growth, with a fine constitution and an excellent habit, producing its flowers well up above its foliage. The flowers can be described as true salmon-pink, very even in colour, centre slightly shaded with carmine. They are large and full, of globular shape, with numerous petals. Altogether a beautiful Rose, quite distinct from any other variety in cultivation. The Rose is the result of a cross between the Queen of Belle Siebrecht (both Roses, curiously and commonly known under other names, Scotch S. A. Prince and Mrs. W. J. Grant), and raised at their Waltham Cross nurseries by Mr. William Paul and Son. This variety being that class of Rose we want more of, decent and at the same time, with proper culture, an exhibitor's Rose. Messrs. William Paul and Son, Waltham Cross (not Cheesnut, as I was misled by in a recent article on decorative Roses) have a record in the Rose world that stands very high, and the subject of this note, their latest production, will enhance their reputation.—H. MOLYNEUX.

North British railway stations and gardens.—Passengers by the Scottish railways have observed a steady improvement in the appearance of the stations on some of the lines, greatly by the practice of the companies in giving premiums for the best-kept station gardens and their systems. Among these may be mentioned the North British Railway Company, which year has given no less than £400 in prizes for its gardens. Under the system recently adopted, which also provides for a temporary exhibition of those winning for some years together in the same class, there are four classes of prizes, respectively being awarded £4, £3, £2, and £1. There are twenty in the first class, forty in the second, sixty in the third, and eighty in the fourth. It is impossible, for reasons of space, to give names of the winners of even the first class, but it may be said that they are well distributed over the system of the company. Some of the stations are admirably kept, and the appearance in summer is often surprisingly good in circumstances where flowers and plants are many difficulties to contend with.

Edmonton and District Gardeners' Society.—It is proposed to form a mutual improvement society, and a meeting for this purpose will be held on Monday, September 28th inst., in the garden library, Pymmes Park, Edmonton, at 8 p.m. The gardeners of Pymmes Park and the surrounding district are invited to attend this preliminary meeting with a view to settling the details. The Middlesex Education Committee have kindly placed the garden library at Pymmes Park at the disposal of the proposed society, and the collection of gardening and botanical books will also be utilised for the purposes of the society. Meetings will be held once a week, at which dealing with some branch of gardening will be discussed. Gardeners in the neighbourhood who are willing to join the society or to contribute papers are invited to communicate with Mr. Weathers, Pymmes Park, Edmonton.—E. W.

A good September Neapolitan.—When so many trees have failed to produce this season those that have given any result are doubly valuable, and Spenser is one of the best. It gave a fair crop. This is a handsome tree, large, and of good quality. Grown on a wall our first fruits were ripe on September 15th, and the crop not being a heavy one was of unusual quality. What makes this variety more valuable is that it colours so grandly, and the fruit is delicious. Spenser is one of the largest I have grown, and a very heavy fruit, a free set of light green flesh; it can be kept until October in a cool place. It is one of the best cool orchard house fruits grown. This was one of many seedlings raised at Sawbridgeworth by Messrs. Rivers. I have not forced Spenser, but for an unheated house or for a cold frame it is most valuable. In the open the tree is a grower, a most valuable variety for late autumn and a splendid exhibition fruit.—G. W.



JESSE WILLARD.
Gardener to Baroness Burdett-Coutts



C. R. FIELDER.
*Gardener to W. H. Burns, Esq., North
Mymms Park, Hatfield.*



JOHN JENNINGS.
Gardener to Leopold de Rothschild, Esq.



GEORGE KELF.
Gardener to Mrs. Abbott.



H. MARKHAM.
Gardener to the Earl of Strafford.



ALEXANDER DEAN (Secretary).



GEORGE REYNOLDS.
*Gardener to Leopold de Rothschild, Esq.
Gunnersbury Park, Acton.*

THE "GARDENERS' I



EDWIN BECKETT.
*Gardener to Lord Aldenham, Aldenham
House, Elstree.*



OWEN THOMAS, V.I.
Gardener to Her Ladyship

THE LATE JAMES SMITH, V.M.H.
Gardener to Lord Rosebery, Mentmore.

RARELY, if ever, before has there been
as will assemble at the Holborn
received by Mr. Leopold de Rothschild.
Considerably over four hundred horticulturists
Committee, which is composed of some of
is to be congratulated upon bringing its wo

INNER" COMMITTEE.



GEORGE WOODWARD.
*Gardener to Roger Leigh, Esq., Barham
Court, Maidstone.*



J. F. McLEOD.
Gardener to Fierpont Morgan, Esq.



WILLIAM FYFE.
*Gardener to Lady Wantage, Lockinge
Park.*



JOHN JACQUES.
Late gardener to Miss Alice de Rothschild.



J. HUDSON, V.M.H. (*Treasurer*).
*Gardener to Leopold de Rothschild, Esq.
Gunnersbury House, Acton.*



CHARLES DIXON.
Gardener to the Earl of Rochester.



GEORGE NORMAN, V.M.H.
*Gardener to the Marquis of Salisbury,
Hatfield.*



WILLIAM HOWE.
*Gardener to Lady Tate, Park Hill,
Streatham.*



JAMES GIBSON.
Gardener to R. W. Hudson, Esq.

RIES.
by Clitherow
ulford

Chairman).
Queen Victoria.

h a gathering of British gardeners
ant on the 29th inst., there to be
will also preside at the dinner.
have promised to attend. The
most eminent gardeners of the day,
such a successful issue.

lotus Dahlia Mrs. D. B. Crane. is the most recent addition to the list of Dahlias, and promises completely to eclipse other white sorts at present in cultivation. Most of the white varieties this flower is true to type, without any of those stiff and irritable characteristics that belong to the city of the white sorts. It is truly a flower of grace and refinement, having long florets of a fine form, which build a flower of perfect shape. White is the proper description of the flower, each one is borne on a stout, erect footstalk, above the foliage. The plant possesses a good and is distinctly free flowering. To Messrs. E. and Sons, Crawley, belongs the credit of having raised this fine acquisition, and among their and comprehensive collection of the Cactus Dahlias, which were in good order when we were a few days since, the variety under notice is repeatedly highly praised.—C. A. H.

Nerine elegans.—This pretty little bulb is now in flower with me in a narrow bedded border in the open air. It is a small little plant, with its scarlet drooping stalks lightly poised on hair-fine pedicels. The stalks are rather over 20 inches in height, the narrow leaves nearly as long. It has as many as 100 flowers, also coming into flower, the same border Zephyranthes candida and amaryllis are now in bloom; and Z. Ander- yellow), and one I received under the name of Z. grandiflora, said to bear red flowers, owing, but show no signs of bloom. Nerine angustifolia major is just opening, Cypella plumbea ready flowered, and C. Herbertii is throwing long spikes. Tecophilaea cyanocrocus has been in the border for the past two years.—Fitzherbert, South Devon.

Good record.—Though it has been one of the best seasons on record for outdoor gardening, it is wonderful what can be done with care and skill. At the very successful show just held at Hall, open to the county of Inverness, the Scotch Gardens won no less than twenty-six and ten seconds, and at Keppoch no glass of gold, except a few cold frames, is allowed, the being that only the old-fashioned hardy plants and plants will be kept. Another interesting feature in this garden is that, though collections of the best bulbs and herbaceous plants, nothing is grown merely because it is new and interesting. Open only to the where it looks out on the great Ben Nevis with grass paths and sweeping banks, the garden is unique and quite exceptional.—JOHN WALD, Keppoch, Roy Bridge, N.B.

SOME GREENHOUSE BULBS.

GREENHOUSE bulbs may, generally speaking, be divided into two classes—firstly, those that are hardy, and yet are largely employed for the ornamentation of the greenhouse, particularly in the early months of the year. Being forced to a greater or lesser extent (a mode of treatment which they readily conform) these bulbs flower earlier than they would if left out of doors, and on that account much appreciated. The popular members of this class are the Hyacinths, and Narcissus. Those belonging to the second section of greenhouse bulbs are the most part natives of warmer climates than the members of the preceding group, consequently the protection of a greenhouse is necessary to enable them to stand the winter or to protect the tender foliage from harsh cutting winds. In the last group are the following beautiful subjects:

IANA.—This genus, which is nearly related to Ixias and Sparaxis, is, like them, native of Africa. Most of the species grow about a foot high, with grass-like leaves and spikes of large flowers, which are particularly remarkable for their rich, almost metallic, blue of some of them. Well grown the flowers are nearly 2 inches in diameter. The bulbs can be obtained at a cheap price in autumn.

CRINUM.—Many of the Crinums require a stove, while C. capense will grow out of doors in many places. The best for the greenhouse (and these are hardy in particularly favoured spots) are C. Moorei, with large heads of blush-tinted blossoms, usually at their best in August. C. Powellii, a hybrid, has deep pink flowers; of this there is a form with pure white blossoms. Once established in large pots or tubs or planted out in the greenhouse they give but little trouble afterwards.

CYTANTHUS.—A race of, for the most part, small-growing bulbs, for many of them are not much larger than a Snowdrop. The leaves are grass-like, and the flower-stem, which well overtops them, reaches a height of about a foot. The flowers, which are borne in a loose cluster, are of a curved, tubular shape, about 2 inches long, and in angustifolius red; lutescens, yellow; Macowani, crimson; and Mackenii, pure white. Another species, C. obliquus, has a large, solid bulb, and will push up a stem about 3 feet high, bearing an umbel of flowers tubular in shape, about 3 inches long, and curiously marked with red, green, and yellow.

FREESIA.—That form known as Freesia refracta alba is one of the most popular of bulbs for greenhouse decoration, owing its position not only to its great beauty, but also to its delicious fragrance. Great numbers are imported every year from Bermuda, the Channel Islands, and the south of France. They reach here in August, and should be potted without delay. The best way is to put eight bulbs in a pot 5 inches in diameter, or larger masses may be formed if desired. F. Leichtlinii is supposed to have a distinguishing yellow blotch, but these features are very variable; indeed, between this and F. refracta as usually met with there is really little, if any, difference. Two distinct but uncommon kinds are F. aurea, with golden blossoms, and Armstrongi, in which they are pink, but these last two have the drawback of being scentless or nearly so.

HAMANTHUS.—Many of these require stove temperature, but two that will thrive in the greenhouse are albiflorus, with white blossoms, and coccineus, scarlet. This last, which is known as the Blood Flower, requires to be hard baked by the sun in June and July to obtain flowers in August.

HIPPEASTRUM.—Though this name is botanically correct, the different varieties are far more generally known as Amaryllis, and as such they are largely used for decorative purposes in the spring. The forms in cultivation have resulted from the crossing and intercrossing of about half a dozen species, and the state of perfection now arrived at says much for the skill of the hybridist who has attained such marvellous results. Whether kept in a greenhouse or a warmer structure the general cultivation of the Hippeastrum may be thus summed up: Keep dry during the winter, start with a little water in February, soon after which the flower-stems will make their appearance, water till the leaves show signs of ripening off, and keep dry when dormant. After flowering plenty of sunshine is necessary to ripen the bulbs for another year.

IXIA.—These Cape bulbs are largely grown in Holland, the Channel Islands, and other districts. They are about the size of a Crocus, and push up wiry stems to a height of 18 inches or so, the upper half being closely packed with showy flowers over an inch in diameter. The colours vary from white to crimson, and in most of them the centre is of a different colour from the rest of the bloom. One variety stands out quite by itself. This is viridiflora, whose flowers are of a beautiful metallic green, with a black centre. The cultural requirements of the Ixias when grown in pots for greenhouse decoration are not at all exacting, and apply equally to the Babianas and Sparaxis. Half a dozen bulbs may early in the autumn be put in a 5-inch pot in a mixture of loam, leaf-mould, and sand. Give but little water till the shoots appear above ground, and plenty of light and air whenever possible.

LACHENALIA.—A class of bulbous plants that have made great strides in popular favour within the last few years. Potted in September in a mixture of loam and leaf-mould, with the addition

of a little well-decayed cow manure and sand, these when in flower (during the early months of the year) delight everyone. From the semi-pendulous nature of the flower-spikes they are seen to great advantage when grown in suspended baskets, or, if preferred, they may be grown in pots and secured to slender sticks. Among the best are aurea, luteola, Nelsoni, pendula, quadricolor, and tricolor.

LILIUM.—A Lily that is essentially grown for greenhouse decoration is Liliun Harrisii, of which great numbers are sent here from Bermuda every year, arriving usually in the month of August. They should be potted without delay, and grown in a light and airy structure, taking care that aphides do not attack the points of the growing shoots. They may be had in flower early in the year, and up to a recent period they were greatly valued in January and February, but within the last few years there has been quite a revolution in Lily culture under glass. This is brought about by the system of retarding bulbs in refrigerators, so that it is possible to have several sorts in bloom at almost any period of the year, though L. longiflorum and L. speciosum best lend themselves to this method of treatment. They will flower in from fifteen to twenty weeks after potting.

NERINE.—An autumn-flowering class of bulbous plants that bear for the most part brilliantly-coloured blossoms. Though so showy they are not so popular as they should be, perhaps owing to the fact that some fail to flower them properly. They need a soil composed principally of good yellow loam, lightened by a little well-decayed manure and rough silver sand. Once established they will stand in the same pot for years and flower well; indeed, they should not be disturbed at the roots more than is absolutely necessary. As above stated, they flower in the autumn; after then the young leaves are pushed and growth goes on through the winter and spring, during which period a good light position in the greenhouse must be assigned them. As the leaves die off, usually in early summer, no more water should be given, and the plants must be stood on a sunny shelf in the greenhouse, or in some similar position, as without a good baking they will not flower freely. There is a long list of varieties, but those old forms Fothergilli, cornuta major, and sarniensis are still among the best, while Manessii is remarkable for its late flowering qualities. Some of the newer forms, however, are very beautiful.

POLIANTHES TUBEROSA (the Tuberose).—This is a universal favourite, though not always grown successfully. It is useless to attempt the growing of good flowering bulbs in this country, hence all that we require are imported either from the United States of America or from South Africa. The last usually reach here in October, while the Americans, of which The Pearl is the best, do not come till December. They may without injury be kept dry for a time, and in order to maintain a succession should not be potted all at once.

SPARAXIS.—Closely allied to the Ixias, but as a rule of somewhat dwarfier growth. The variety Fire King, scarlet and yellow, has attracted a good deal of attention within the last year or two, being particularly noticeable at the Holland House show this season.

SPEKELIA FORMOSISSIMA (Jacobaea Lily).—This, known also as Amaryllis formosissima, produces a solid bulb, which can be purchased cheaply in the winter. If potted early in the year it will in the greenhouse flower about June. The stem reaches a height of about 1 foot, and the flowers, which are of a somewhat peculiar shape, have intense blood-red coloured petals, on which account they are particularly striking.

URCEOLINA AUREA or PENDULA.—A bulbous plant from the Andean regions of South America, with dark green, heart-shaped leaves, and curious, drooping, urn-shaped blossoms. They are borne in an umbel on a stem about 18 inches high. The individual blossoms are 2 inches long, distinctly marked with yellow and green, and of a thick wax-like texture. Autumn is its season of flowering.

VALLOTA PURPUREA (Scarborough Lily).—A very old inhabitant of our greenhouses, whose showy flowers are borne usually in early autumn. Like

many other bulbous plants, it should not be disturbed at the roots more than is absolutely necessary. It is evergreen in character, and should not be dried off at any time, though overwatering must at all seasons be strictly guarded against.

WATSONIA.—The genus *Watsonia* consists of *Gladiolus*-like bulbous plants, all of which are natives of South Africa. One, *W. iridifolia* *Ardernei* or *O'Brieni*, has made great strides in popular favour within the last few years. In this the blossoms are of the purest white. Other desirable species include *W. angusta*, orange-scarlet, and *W. humilis*, pink.

BULBS FOR FORCING.

The different bulbous plants that, though thoroughly hardy, are largely forced for decorative purposes in the early months of the year are for the most part grown in Holland, from which country immense numbers are sent every year. *Narcissi* are, however, grown in considerable numbers in England, and there is no reason why we should not produce a great many more of the bulbs required for home consumption than we do. The idea that it would be useless to compete with the Dutch in the cultivation of bulbs is now generally proved to be erroneous, for among other places they are largely grown at Kew. On this point there is a short note in the "Hand List of Herbaceous Plants," as follows:—

"Mention must be made of the Kew collection of bulbs. These, though largely used to produce a decorative effect in the spring, are in great measure of botanical interest. They have for the most part been grown at Kew since 1886, from a small original stock, by the same methods as are employed in Holland. At the beginning of summer they are lifted, harvested, and planted out again the following autumn."

At Kew, I believe, a greater measure of success is attained with Tulips than Hyacinths, and Messrs. Veitch, in their bulb catalogue, show photographs of flowers from home-grown and imported bulbs, in which the advantage rests with the native production. The principal hardy bulbs employed for forcing are:—

HYACINTHS.—The chief consideration in the early forcing of Hyacinths is to see that the bulbs are well rooted before taking them into heat; indeed, it is the golden rule towards their successful culture. The month of October is a good time to pot the bulbs, and, unless there are special reasons to the contrary, one bulb should be put in a 5-inch pot. After potting stand on a good bed of coal ashes to prevent the ingress of worms, and cover about 3 inches deep with ashes, or, better still, cocoanut refuse. In making a selection for early forcing, very few, if any, double-flowered varieties should be included, as at first they do not develop so well as the single ones, though later on they make a grand display. A temperature of 50° to 60° is quite high enough for even hard forcing of Hyacinths, as if hotter than that the whole plant is so weakened that a great deal of its beauty is lost. Though they can be obtained by the new year, Hyacinths under glass are seen at their best in the month of March.

The little Roman Hyacinths which reach here in a dormant state by the end of July may be had in flower long before Christmas.

TULIPS.—The cultural requirements of Tulips for flowering under glass are much the same as Hyacinths, except that in the case of Tulips from three to five bulbs may be put in a pot. The earliest to flower are the different members of the Duc Van Thol section, represented at one time only by the common red and yellow form. Now, in addition, we have varieties with crimson, orange, rose, scarlet, white, and yellow flowers respectively. A little later than these we have a great choice of many beautiful varieties.

NARCISSUS.—The different members of the *Polyanthus* *Narcissus* group have been long employed for forcing into bloom, particularly the double Roman and Paper White, but of late years many of the Daffodils have been largely treated in the same way, so much so, indeed, that in some large establishments they are grown in immense numbers for the purpose. The principal thing is to get

the bulbs well rooted and avoid hard forcing. The Chinese Sacred *Narcissus* will develop its highly fragrant blossoms if the bulbs are simply placed in a bowl of water with a few stones around to keep them in place.

GLADIOLUS.—The only section of *Gladiolus* generally grown in pots for greenhouse decoration is that known as early flowering, and one variety in particular, viz., *Colvillei albus* or *The Bride* is often grown by thousands. Other beautiful sorts are *Delicatissimus*, *Duke of Albany*, *Emperor William*, *Fire King*, *Prince Albert*, and *Rosy Gem*. These *Gladiolus* bulbs should be put several in a pot, as in this way effective little masses are produced. They need plenty of light and air when growing, otherwise they run up thin and weak.

Besides the different subjects above mentioned there are many others that naturally flower early, even in the open ground, and are of great value for greenhouse decoration even before their natural period of blooming. They include *Allium neapolitanum*, *Chionodoxas*, *Crocus*, *Scillas*, *Snowdrops*, and *Muscari*. T.

THE TRANSPLANTING OF NARCISSI.

THE advice of an old Daffodil grower to transplant when the clumps become "more leafy than flowery" is good as far as it goes, but it is certainly better not to wait until the stage of deterioration is reached. In this matter, as in pretty well all things relating to gardening, no hard and fast rule can be laid down, much, I might perhaps say, depending on climate, the nature of the soil, and the variety. In some soils it is impossible to keep such sorts as *cernuus*, *moschatus*, and that grand old double Silver *Phoenix* in good health without annual lifting, this being especially the case when the average annual rainfall is great. It is the same with such delicate varieties as with Tulips. They seem to need a change into fresh, well-sweetened ground every year, and it is possible that the lifting and drying off helps to mature the bulbs. Those who grow *Narcissi* for sale must lift the bulbs annually, and some market growers and amateurs do the same, believing that in this way they get flowers of superior quality. In some soils and localities this may be the case, but I am quite certain that this practice need not be generally followed; in fact, in many places I feel sure that the full beauty of many *Narcissi* is not realised unless the bulbs remain several years undisturbed. This is the case with me. Buying bulbs from time to time I find that, although I get them from specialists and plant in good time, I do not get the size of bloom and vigour that distinguishes them in the second and third year from planting. I have never seen that grand old variety *princeps* in such fine form as in the late Mr. Wilson's Wisley garden. Each clump carried about twenty blooms, and so fine were they both in the matter of size and colour that at first sight I did not recognise the variety. I once had some clumps of *cernuus* which in their way were as remarkable. Each clump carried about thirty blooms, exceptionally fine in form and colour. These clumps were the produce of about a dozen bulbs, which, never having been in any way disturbed from time of planting, in the course of five or six years increased in that manner. In the end I broke these clumps up and planted the bulbs in another place, but they never did so well. I could never get them to yield flowers of such fine quality. Probably there was something a little different in the soil or the position was more favourable where I first put them.

In the case of the albino and more delicate varieties generally it is better when one has several bulbs to try them in different situations, for in all probability there is just one place where they will do best. In gardens of considerable dimensions the soil will frequently vary considerably, and even in small gardens there is often more variety than one would think possible. It is wisest to leave well alone, and in lifting choice sorts that have done

well it is safest to return them to their old quarters, first thoroughly sweetening the soil and adding some decomposed leaf-soil. It will soon be seen whether certain varieties are likely to do on the let alone-principle, the growth and colour of the foliage surely indicate how they are likely to fare in the long run. The first season bulbs obtained from a reliable source are pretty certain to give satisfaction; it is in the second season that one is able to see if local conditions are favourable to perennial vigour. Should there be any signs of decline the annual lifting system must be adopted. In some soils and localities it seems absolutely necessary that the more delicate rooting kinds should get an annual change into soil that has been exposed to the sweetening influences of summer. In northern districts, or where the average rainfall is great, it will scarcely be possible to grow such as *moschatus* and the albino kinds in any other way. The mere lifting and drying off for some weeks in a dry place as it hardens and rests the bulbs in a more favourable manner than if left in the ground. The second season, for instance, the ground has been thoroughly warmed and dried from the foliage died off. In taking up some *cernuus*, *princeps* and others, I found that of the old roots were in a semi-active condition had I not lifted them I do not see how they could have got thoroughly rested. This, of course, is an exceptional summer; but in a general way one need not think of lifting such free-growing sorts as *Horsfieldi*, *princeps*, *Empress*, &c., unless more before stated. I feel sure that the bulbs will be more effective and in every way finer when placed several years.

The Daffodil grower will have to be guided by his experience. In the course of two or three years he will be able to form a tolerably correct opinion of the suitability of his soil for varieties of more or less uncertain in their behaviour. A fine old kind *Silver Phoenix* will only do well in many places when lifted, dried off, and annually in sweetened ground. With me, if allowed to remain two or three years undisturbed, but I am blessed with a soil in which albino varieties do very well. It is a very trying time to deal with in a time of drought in which bulbous flowers generally suffer, especially because they get well ripened. One of the old double white, is a complete failure in the ground. Good bulbs will bloom well the first year, the second year they do not bloom or fail to expand their buds. One has been frequently made in this case in gardening papers of the non-expanding flower-buds, which when about half-developed melt away instead of opening. This is a very annoying, and when, as is often the case, every season, the grower consigns the bulbs to a rubbish heap. The failures are most frequent in light soils, and are undoubtedly due to lack of nutrition at some period of the growth. Lifting is, so far as I am aware, the only remedy, and if you want really good blooms, to be both by sound, perfectly finished off bulbs the following year, they must get an annual change of ground, and a certain amount of manure applied in some manner. Well-rotted manure, dug in at the time of planting 6 inches deep, so that it does not come into contact with the roots or crushed bones may be worked into the ground at planting time. Give the bulbs a change into sweet, deeply stirred ground, with plenty of nourishment when the buds are forming, and you will get good blooms and a vigorous growth. As regards the disease, which in some places is troublesome, I feel convinced that in most cases it is induced by falling vigour. A very hot, dry season, which lowers vitality, will bring it on, and a very wet one, in which the bulbs cannot mature properly, will have the same effect. So far as my experience goes, only the more delicate kinds are affected. I have never known such robust varieties as *princeps*, *rugilobus*, *Leedsii*, &c., to be affected. When it is seen that a variety has not made good growth and that the foliage has a tinge of yellow, do not delay lifting. Get them out of the ground as soon as the leaves die off. Clean every bulb

and keep them in a cool, airy place until the beginning of September. Do this annually and there will be but little loss from disease.
Byfleet. J. CORNHILL.

THE DAFFODIL IN 1903.

Those who have not closely followed the fortunes of the Daffodil of late years would scarcely credit the wonderful developments in its form, and colouring which have taken place. Nor have these improvements been confined to one division alone—although, of course, in some a greater perfection has been

coloured, are proceeding apace. Formerly the range of colouring was restricted to only a few colours; now all is changed, and so many lovely new shades have appeared that the popularity of these hardy spring flowers seems likely to become still further enhanced in consequence. This year the most striking feature has been

THE ADVANCE OF THE WHITE AJAX.

Last season this section received some remarkable additions, but this year most of these were surpassed in beauty by five of the most glorious white varieties. Four of them created a perfect sensation at the show of the Midland

Daffodil Society—these being *Francesca*, Mrs. Robert Sydenham, Mrs. George Barr, and *Loveliness*. The first two came from Messrs. de Graaff Bros. of Leyden, and the two latter from Messrs. Barr and Sons, and in each case the seed-bearing parent was Mme. de Graaff. Decidedly the loveliest flower of the set was

Francesca, which was selected by the judges as the finest new trumpet seedling in the show. It was recognised on all sides as the forerunner of an entirely new type. The mouth of the trumpet is fringed, and extremely revolute in character, so much so that it presents a very shortened appearance in consequence. The pointed perianth segments are very broad, overlapping, and of great substance. Both trumpet and perianth are of exquisite purity, and the plant, I learn, is of vigorous constitution. The pollen parent was the white Ajax Cecilia de Graaff.

Mrs. Robert Sydenham, which gained an award of merit, has a broad pure white perianth, slightly campanulate, and a straight white trumpet elegantly

rolled back at the mouth. I am told that it grows about 16 inches in height, and flowers just in front of Mme. de Graaff.

Mrs. George Barr, which gained an award of merit from the Royal Horticultural Society, as well as at Birmingham, has a very large, bold, stiff perianth broadly imbricated at the base. The trumpet, which is very elegantly crimped and expanded at the mouth, measures 1½ inches across, and is tinged with palest lemon. The segments are of great purity, and on the exterior are heavily splashed with green at the base.

Loveliness has a pale lemon trumpet tinged with a deeper shade of lemon at the base, and is in consequence not quite so chaste in appearance as the previous varieties. The pollen parent in this case was *Empress*, and the creamy lemon perianth segments resemble this variety in character, and are 1½ inches in length. Mr. P. R. Barr kindly tells me that Mrs. G. Barr grows to exactly the same height as Mme. de Graaff, while *Loveliness* grows about 1 inch taller, and both flower somewhat earlier than Mme. de Graaff. Several other white trumpets made their first appearance in public this year, but only one of these could rank in the same class as those just described.

Henri Vilmorin.—The variety I refer to, is an extremely large and refined flower. It was exhibited at Truro for the first time this year, being greatly admired by all who saw it. The pale lemon trumpet closely resembles that of Peter Barr, but is neither so chaste nor so large, while, instead of the twisted perianth segments of the latter, it has splendid stiff lanceolate segments of extreme purity. As exhibited at Truro, the flower measured over 4 inches across. It is a significant fact that nearly all the most notable of our white trumpets owe their origin to Mme. de Graaff, and this in its turn to the little wild *N. moschatatus*. Among the

SELF YELLOW TRUMPETS.

four noteworthy additions have appeared. *Cleopatra* has Monarch for one of its parents, and is really an improvement on that variety. *Royal* is absolutely the largest trumpet Daffodil yet exhibited, surpassing even Van Waveren's Giant in size, and is also of much better form. *King's Norton* is an enormous Emperor, from which it is a chance seedling. This is a variety of great substance, and the flowers last in good condition for a month. *Ducat* is a dainty little golden Daffodil which might have had Golden Spur and the Tenby Daffodil for its parents.

THE JOHNSTONI SECTION.

Here Mr. Engleheart has achieved the most striking of all his gains, and I do not think I shall be far wrong in saying that some of these new artificially-produced *N. Johnstoni* forms are the loveliest of all the race. Very few varieties leaped into popularity as quickly as the graceful little Queen of Spain, with its exquisite shape and colour and lasting qualities. None of these new creations are as yet in commerce, and the thanks of all Daffodil lovers are due to Miss Willmott for placing them before the public in such superb form, both at the Drill Hall and at the great Birmingham Show, during the past few years.

Narcissus odoratus rugulosus maximus.—Under this name Messrs. de Graaff exhibited some flowers at the Midland Show about twice the size of the old Campenelle. This new variety originally emanated from America, and, as it has so far only produced one flower on a stem, I hesitate to say whether it is likely to be an improvement or not. Messrs. de Graaff's new sport, Apricot Phoenix, is a great addition to the doubles, and a most distinct novelty.

THE ENGLEHEARTII SECTION.

During the last few years such a number of extraordinary gradations of form have been produced by Mr. Engleheart, many of them which do not conform to the regulations of the present classification, that sooner or later an alteration will be absolutely imperative. Two schemes were put forward for discussion at the Birmingham Conference this year; one by Professor Hillhouse, and the other jointly by Messrs. F. W. Burbidge and P. R. Barr. Although neither of these was deemed work-



NARCISSUS BROADWING.

(Flowers 3½ inches across; it belongs to the Engleheartii section.)

strained than in others—for there is scarcely a single section which has not been considerably enriched by the addition of many delightful new forms. In the whole history of florists' flowers there is none which appears quite so fruitful of interest as that which pertains to the Daffodil. The far-reaching work commenced by Herbert, Backhouse, Leeds and Nelson has been steadily pursued by Mr. Engleheart, Messrs. Barr, Messrs. de Graaff, and others to the present day, with the result that each year we get more and more beautiful flowers, and exquisite gains, especially in

able at the time, as a result of the discussion no doubt a good scheme will be evolved in time for next season. There was one point in which both these schemes were in complete agreement, and that was the proposal to name the shallow or flat crowned group of Parvi-Coronati varieties (now classed as Burbidgei), after Mr. Engleheart, who has been successful in raising them, and who has made them so peculiarly his own. Most of these are crosses between the poeticus varieties and the white wide-crowned incomparabilis sorts. This proposal has met with very general approval, and is certain to be embodied in any scheme of re-classification which is adopted. Perhaps the most striking flower in this section is *Incognita*, which was exhibited in grand condition at Truro, and also at Birmingham, where it won the silver medal for the best Parvi in the show. The rich citron-orange crown is quite an inch across, and is in exquisite contrast to the noble pure white segments. *Egret*, so much admired last year, is another premier flower in this section, and has proved an extremely free bloomer. *Astradente*, which was the premier Parvi variety at Birmingham last year, and received an award of merit from the Royal Horticultural Society in May last, is another very remarkable flower belonging to this same section. This year saw the section still further increased in importance by the addition of such exquisite kinds as Broadwing, White Ensign, Cyclops, Hyacinth, Gold Eye, and Red Disc.

Broadwing was the most beautiful flower in Mr. Engleheart's unique exhibit at the Midland show, and the whole of the stock was disposed of some time before the judges had singled it out for an award of merit. The singular beauty of the glistening white perianth is set off by the disc-like crown, which is of a light orange-yellow edged with deep orange. The individual flowers measured a little over $3\frac{1}{2}$ inches across. It will most probably be exhibited before the Narcissus Committee next year, so that those who have not yet seen it will be afforded an opportunity of doing so. *White Ensign* closely resembles the last, but is scarcely so refined, while *Cyclops*, which has a large, flat, bright yellow crown and rather pointed overlapping segments, reminds me very much of *Egret*. *Hyacinth*, which gained an unanimous award of merit at Birmingham, is quite a new departure, and as I see that it has now been placed in commerce at a most reasonable price, should be made a note of by all those who wish to keep their collections up to date. The flowers possess the unusual merit of being sweet-scented, resembling, in fact, a delicate Hyacinth-like odour, hence its name. It is a beautiful starry flower with a pure white perianth of very lasting character, and a large flat yellow and saffron crown. *Florin* is another flower of great elegance, and very symmetrical. In this the flat cup is three-quarters of an inch across, and of a distinct citron lemon shade with an orange edge.

THE BURBIDGEI SECTION

already contains so many flowers with glowing cups that it is becoming increasingly difficult — where all are attractive — to distinguish between them. Some of the varieties, however, have very weak perianths, and it is here that we must look for considerable improvement. *Firebrand*, which was magnificent at Truro, still holds the lead as being the brightest.

Salmonetta is a delightful break in colour, and *Vermeil*, in which a good deal of Poetarum influence is clearly visible, is another pleasing flower. In

THE POETICUS SECTION

Laureate and *Valeria* are both grand flowers. *Horace* is an exquisite form, though scarcely so large or so vigorous as *Homer*. *Epic*, *Virgil*, *Glory*, *Comus*, *Chaucer*, *Dante*, *Ben Jonson*, *Sidney*, *Sonnet*, and *Carol* are all of great beauty, with vivid crowns and pure white perianths. *White Elephant* is described as a poeticus, outstripping everything yet raised in size of plant and flower, and when well cultivated reaches an enormous size.

THE INCOMPARABILIS AND BARRI SECTIONS have made great strides, and the only difficulty now, as Professor Hillhouse remarked at the last Midland Daffodil conference, is that the difference between the two sections is undefinable. Miss Willmott's *Lemon Queen* is a very distinct canary yellow flower with an elegant drooping habit. *Occident*, which was seen in Mr. Engleheart's exhibit at Birmingham last year and received an award of merit at the Drill Hall this spring, has an intense glowing chalice and fine lemon segments. *Homespun* is an unique yellow flower of splendid texture, and was exhibited at



HYACINTH BULBS: SHOWING METHOD OF PROPAGATION.

Truro, almost 4 inches across. *Symmetry*, with a rather flat, bright yellow, orange-tipped crown and creamy perianth; *Retainer*, a well-formed flower with a deep yellow crown and lemon yellow segments; *Bodyguard*, with stiff, overlapping, creamy perianth segments and short spreading crown of bright lemon, are all incomparabilis varieties of high merit. *Zingara*, from Mrs. R. O. Backhouse, which gained an award of merit at the Drill Hall on April 7, is a large, strong-growing variety with stiff, white, reflexing perianth and broad spreading cup of bright orange red. *Castile*, an exceptionally fine Barri, won much admiration at Birmingham, and received an award of merit. Here the great charm lies in the rich orange suffusion in the wide crown and the shapely cream-tinted segments.

Each year sees the standard of quality raised, and sooner or later all flowers with weak or poor perianths—such, for instance, as *Will Scarlett* and *Torch*—will no doubt have to give place to varieties in which this fault is remedied. Those who watch over the destiny of these hardy spring flowers know that there is no finality, and that much still remains to be accomplished. Year by year the popular taste for these flowers grows stronger, and, as many of these exquisite new forms become plentiful, our gardens will be beautified with their endless diversity of colour.

Worcestershire.

ARTHUR R. GOODWIN.

PROPAGATING HYACINTHS IN ENGLAND.

THE accompanying illustration shows the method of propagating Hyacinths which is adopted in England in order to increase a given variety. The base of the bulb is scooped out and then laid to dry, and in a few weeks the small bulblets appear between the axils of the scales of the bulb. The whole is planted, and during the winter and spring even if no top growth appears, the bulblets increase in size by taking the nourishment from the parent, the latter remaining nothing more than a few dried-up leaves. The small bulbs are then transplanted several years in succession until they are of saleable size.

W. J. BELDERSON.

THE TULIPAS.

(Continued from page 166.)

IV.—EARLY-FLOWERING, BEDDING, AND FORCING TULIPS.

THESE are so well known that detailed descriptions are quite unnecessary. There are many varieties, and new plants are constantly being added to an already large group, so that one can well dispense with quite half of the older ones possessing some glaring defect from the gardener's point of view. A standard bedding and forcing Tulip should have rigid stems; bold, wide expanding flowers, with broad petals, so that the closed flower is cone-shaped; and clear, well-defined colouring that will be close inspection, and which will prove effective at a distance. Double Tulips of the type of *Lady Grandisson* make good bedding Tulips, but those of which *Yellow Rose* may be accepted as a type are no more suited for bedding than a Lombardy Poplar. Their stems are weak, twisting and drooping under their heavy load of inflorescence, and after the first rainfall the petals decay, become soil-stained, and badly bleached. The following appear to be good bedding Tulips from the all-desirable characters of withstanding bad weather, and the colouring height of growth, and season of flowering given will help the planter to arrange displays uniformly and in sequence of flowering.

The *Duc Van Thols* are the heralds of the race. They are all forms of the sweetly scented *T. suaveolens*, numbering about twelve. Their short stems are a defect, though a common one with early-flowering plants. Nevertheless, we could not dispense with them—all are good.

Of second earlies, *Brunhilde*, a magnificent broad-petalled white flower flushed with yellow, growing 15 inches high; *Canary Bird*, pure yellow, 1 foot high; *Keizer's Kroon*, 14 inches high, scarlet, edged yellow; the *Pottabakker*, 14 inches high, in white, scarlet, and yellow distinct colourings; *Proserpine*, a grand rose carmine flower, 1 foot high; and *Vermilion*, another grand Tulip, coloured scarlet-vermilion, about 1 foot high, are among the most distinct—free, also, from any bad traits.

The next group, holding a third place in sequence of flowering, embraces as good representatives: *Artus*, rich dark scarlet, 9 inches high; *Chrysolora*, pure yellow, paler than *Canary Bird*, 12 inches high; *Coleur Ponceau*, 1 foot high, coloured cerise, flushed and feathered white externally; *Cottage Maid*,

under 1 foot high, choice little flower, white, with rosy edging; *Crimson King*, crimson-carlet, 10 inches high; *Van Vondel*, 1 foot high, pure white, a very striking flower and a good white bedder—cannot be too freely used to break up clashing colours; *Yellow Prince*, very fragrant yellow Tulip shading to orange with age, under 1 foot high.

The last to flower, and which are succeeded by the May-flowering Tulips, embrace as admirable representatives: *Coeur Cardinal*, a massive scarlet flower with crimson shading, 1 foot high; *Duchesse de Parma*, 1 foot high, orange-scarlet, flushed and edged old gold; *Lea Mundi*, 1 foot high, pink, with rosy shading and flushed with white; *Rose Gris de la*, 1 foot high, rich rose, flushed with white; *Thomas Moore*, 18 inches high, large flower coloured orange, shaded terra-cotta, and flushed golden yellow.

Of double early-flowering Tulips one can recommend as a good representative half-dozen: *Imperator Rubrorum*, scarlet, 12 inches high; *La Candeur*, white, with pink tips later, 12 inches high, very late; *Lady Grandisson*, crimson-scarlet, of Duc Van Thol habit, very dwarf and brilliant, but few petalled; *La Grandesse*, rose, tinted white, 10 inches high; *Innocence*, snow white, very choice and full flower; *Vuurbaak*, orange-scarlet, possessing the brilliancy of T. Greig, comes best on poor soils.

Double Tulips should not be watered overhead, their petals quickly decay, and in forcing them a dry buoyant atmosphere should be maintained. *Yellow Rose*, a fine double Tulip and sweetly scented, coloured yellow, with olive petal tips, should be grown for its flowers, though its lax habit leaves much to be desired.

Variegated-leaved Tulips make excellent bedding plants, either solely or in association with their plain-leaved brethren, but one cannot recommend a free use of them, for their floral colouring is not vivid, and those white and pale coloured varieties are seen to disadvantage in competition with their leafage. *Cottage Maid* has leaves bordered with creamy yellow and edged with rose. Its flowers are white edged with rose. *La Belle Alliance* (Waterloo) has silvery white leaf-margins and crimson-scarlet flowers. *La Candeur* has white flowers and leaves margined with cream. *Lac Van Allyn* has rosy violet flowers of rather dull colouring and silvery margined foliage. *Royal Standard* is generally grown; its flowers are white streaked with cerise, and the foliage is broadly margined creamy white. *Yellow Prince* is exceedingly pretty, flowers yellow, foliage variegated and edged creamy yellow on a milk-white ground colouring.

V.—PARROT TULIPS.

A singular-looking race of garden origin, at one time despised as fantastic, gaudy, and weird. They are that now, but their singular shape and colouring is welcomed by many, though the old prejudice dies hard. Their weak stems, though adding to their grotesqueness, are undesirable features in a garden plant, and it is very necessary to carpet the soil beneath them with some low-growing herb that would protect the flowers from mud splashes and give the stems some support. For this purpose, the common Rock Cress or its double form is excellent; it gives the needful white, always lacking in Tulip beds, and most desirable in the case of the gorgeous Parrot Tulips. Their bulbs cannot be depended upon to flower every year; a few out of each planting will bear no flowers, and this is not a matter for surprise when one considers the great

tax a massive Parrot Tulip flower places upon its bulb. Not only is it unusually large for a Tulip, but the hosts of petaloid processes that issue from the surfaces of the petals are in themselves robbers of tissue derived from the bulb. Those who care to weigh the flowers of a Parrot Tulip and that of a Gesner of the same dimensions will find the Parrot weighs nearly twice as much as the Gesner. There are six varieties one can describe as distinct, and though each variety has several names, and may perchance be known to some under one or other of them, the names here given are those in general use, and, where possible to learn, those given them by their raisers. *Admiral Constantinople* is coloured scarlet and variously splashed orange. *Coeur Café* has brownish red flowers spangled with minute dots of chocolate, giving the flower a bright bronzy sheen. *Cramoisie Brilliant*, rich crimson, flecked and splashed with chocolate, blue, and black. *Lutea major*, shades of yellow, with olive tints showing here and there. *Maark Graaf* [von Baden], yellow with orange flecks, splashed and striped externally with scarlet. *Perfecta*, yellow, heavily striped scarlet; the petals are remarkable for a series of horn-like processes pointing in all directions that often occur on their surfaces. Intermediate forms are legion. All flower in May.

GEO. B. MALLETT.

[The monographs of various genera published in THE GARDEN appear to have been much appreciated. We have, therefore, arranged for the publication of others. Lilies will next be described.—ED.]

TREES AND SHRUBS.

A CLIMBING HYDRANGEA.

FOR many years this plant, now generally known as *Hydrangea scandens*, and to which the specific names of *petiolaris*, *cordifolia*, and *volubilis* have also been applied, was thought to be identical with *Schizophragma hydrangeoides*. Both plants were introduced from Japan in 1879, both are self-clinging climbers like the Ivy, and both bear flat flower-heads, in which the fertile blossoms, which are inconspicuous, far outnumber the large sterile blooms. However, a Kew authority writing in THE GARDEN in August, 1896, says: "In foliage and mode of growth this species resembles *Schizophragma hydrangeoides*, and is frequently grown under that name. The two are quite distinct." This, coming from Kew, is doubtless correct, though I confess that, personally, I am unaware in what the difference consists. In several gardens that I know *Hydrangea scandens* is grown as *Schizophragma hydrangeoides*. It is a deciduous climber and quite hardy, at least



HYDRANGEA SCANDENS (THE CLIMBING HYDRANGEA) IN THE GARDEN OF MR. RASHLEIGH AT MENABILLY, CORNWALL.

in the south-west. Its deeply serrated, somewhat heart-shaped leaves are about 4 inches in length and 3 inches in breadth, and are of a very pleasant green. The large, flat corymbs, often 10 inches across, are composed mainly of small, fertile blossoms that detract somewhat from the decorative effect of the plant, the white, sterile blooms being few. On this account it is not to be recommended as a wall climber, for which purpose it is often used in the south-west, as in that favoured climate there are many beautiful half-hardy flowering subjects, such as *Sollya heterophylla*, *Bignonia*s, *Tacsonia*s, *Cassia corymbosa*, *Manettia bicolor*, and numerous others that do well on open walls and are far more ornamental. As a tree climber, for clothing the great bare trunks with foliage and flower, however, the climbing *Hydrangea* stands unsurpassed, for here its effect is striking and unique. Clinging to the bole with rootlets thrown out from its lengthening growths it requires no adventitious aid in the shape of wire or tarred string to ascend the trunk, but when once planted makes its way upward year by year until it has enveloped the whole of the tall shaft with its twining shoots.

The specimen portrayed in the accompanying illustration is growing in the famous garden of Menabilly, Cornwall, the property of Mr. Jonathan Rashleigh, which contains a collection of rare and tender plants unsurpassed on the mainland of England. This *Hydrangea*.

was planted at the foot of a tall Turkey Oak about thirteen years ago, and has now ascended the trunk to a height of over 40 feet. The climbing Hydrangea is very easily propagated, for if the creeping stems are laid along the ground and held in position by pegs roots will be freely produced and shoots will start from the joints. When sufficient root growth has been made the pegged-down stem may be cut into lengths, each one of which will form a plant. The greatest fault of this Hydrangea is that its flower-heads, by reason of the few sterile blossoms they contain, are not sufficiently showy. If any hybridiser were to take the plant in hand and eventually succeed in eliminating the fertile blossoms and producing sterile ones in their place we should have a far more ornamental plant, and one that would always command admiration, whether used as a wall climber or for covering tree trunks.

S. W. FITZHERBERT.

SPIRÆA AITCHISONI.

THIS plant is not very well known as yet, as it has only been introduced some five or six years; but when it is better known it will become popular, as it is a handsome and graceful shrub, somewhat resembling *S. lindleyana*. The stems are smooth and slender, reddish in colour, and are clothed with alternate, pinnate leaves. Each leaf consists of from fifteen to twenty narrow deeply serrated leaflets from 1½ inches to 2 inches in length, and of a soft, deep green colour. The pure white flowers are freely produced in terminal panicles, and open about the middle or end of August. *S. Aitchisoni* requires practically the same treatment as *S. lindleyana*, and with age attains to nearly the same size. Propagation is effected by seeds, layers, or suckers; the latter, however, are sparingly produced.

Bagshot, Surrey.

J. CLARK.

SOME LESSER-KNOWN JAPAN TREES AND SHRUBS.

(Continued from page 200.)

As a striking pillar plant *Polygonum multiflorum*, which makes 20 feet to 25 feet of growth in one season, is invaluable, and the long undistinguished *Vitis Thunbergi* has proved superior

from a gardening standpoint to *V. Coignetiae*, which in general aspect it resembles. It may be distinguished by its leaves being hairy beneath, of thicker texture, and assuming a richer hue in the autumn.

Nearly allied to the Japanese Hollies, of which the most beautiful is *Ilex latifolia*, is *Hovenia dulcis*, introduced to European gardens some ninety years since. In England it has attained a height of 20 feet, but in its native habitat, extending from the Himalayas to Japan, it attains nearly double these proportions, as it does under cultivation in Australia, where it forms a symmetrical if not ornamental specimen. The thickened flower-stalks, somewhat insipid, but not unlike a Pear in flavour, are said to have medicinal properties.

Among evergreen shrubs there should not be overlooked *Photinia serrulata*, the *Linderas*, and *Daphniphyllum glaucescens*. *Photinia serrulata* (figured in the *Botanical Magazine* as *Cratægus glabra*) is one of the best of our seaside shrubs, individual specimens attaining a great diameter.

Not less than twenty species of *Lindera* are found in the Far East, by far the handsomest being *L. obtusiloba*, attaining in Japan a height of 20 feet to 30 feet. In Surrey a promising specimen is already 12 feet in height, its foliage assuming annually the characteristic clear yellow autumn tint. *L. sericea*, found further north than is *L. obtusiloba*, is equally hardy. *Daphniphyllum glaucescens* is a singularly handsome shrub, far too little known. In this country the female plant grows luxuriantly and seeds profusely, the seed germinating freely, unlike consignments received from the native forests, probably due to their passage through the tropics. Professor Sargent states it is of Malayan origin, though apparently acclimatised in Japan.

JAMES H. VEITCH, F.L.S.

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NATURALISING SPRING-FLOWERING BULBS AND PLANTS.

WITHIN the last few years this phase of gardening has become so popular that there

are few gardens that have not some spring-flowering bulbs planted in the grass, under the trees about the pleasure grounds, in the orchard, or in the meadow land adjoining the garden, but how seldom one sees an effective group planted in a natural way. Too often the bulbs are set out in lines or circles, or dotted about in small clumps, without any attempt at natural effect. I have even seen Daffodils planted on parts of the lawn which are mown by the machine, where they are quite out of place.

It is not everyone who can make a really natural group, but it is at least easy to avoid set patterns or dotting at even distances and the indiscriminate mixing of colours.

What I write in these articles is the result of my own experience, which has been gained from several years of planting, and the illustrations reproduced are from negatives I have taken from the results of such planting. They will, I trust, help to show what a pleasing and interesting picture the natural spring garden can be made, quite apart from the flower garden, generally so called, where such things as Daffodils sadly interfere with the early bedding out, that is, if they are allowed to remain until their leaves have died down, which is so necessary to the well-being of the bulbs, for on this depends the flowering for another season. How untidy, too, a bed of half-withered Daffodil foliage looks, whereas if they are in the grass they can be allowed to remain undisturbed, and the withering foliage will not be noticed amongst surroundings which so closely resemble them.

The plants I name are obviously only a few of the many that are suitable for the wild garden. I have, however, selected those with which I have had some success, and after the name of each of the varieties of Daffodils I have put the date when the first bloom opened here (North Wales) last spring, but I may say that most of them were about three weeks earlier this year than in 1902. I will begin with

Daffodils, as they are the best of all the spring-flowering bulbs for our purpose. There are few of this family that will not flourish in the grass; the Polyanthus varieties are the only ones that have failed here. Some varieties, such as *Moschatus* (March 25), a charming little white gem which seeds freely; the English Lent Lily, *Pallidus Præcox* (February 19); and *Cernuum* (March 25), a pretty silvery white flower of medium size, rather expensive (about 5s. 6d. per dozen), but well worth having, are all quite at home under a cool covering of turf, although they will not flourish in the richer garden soil. The old double yellow Daffodil (*Telamonius plenus*) is a grand one for massing, and is as effective as any when planted freely.

As to the trumpet varieties, in naming the following I have selected, as far as possible, those which produce seed, and are therefore more likely to become established and spread. The best of the early ones are: *Obvallaris* (February 18), or the Tenby Daffodil, of uniform clear yellow, perfect in form, and of medium size; *Golden Spur* (March 8), large deep yellow, with trumpet lobed; *Spurius* (March 4), soft clear yellow; and *Pallidus Præcox*, already mentioned, a lovely pale straw-



NARCISSUS TELAMONIUS PLENUS AT ST. ASAPH.

coloured flower. And if you have a mossy bank where the grass does not grow too long you should try such varieties as *Minimus*, a tiny little gem, which was in bloom here this year before the end of January, and *Cyclamineus* (February 18), a very distinct and dainty little flower of rich golden yellow, with reflexed perianth, which seeds freely, so should soon become established.

These are the best of the early varieties. There are a great number of later-blooming ones which can be used, and the best of them, which are not too expensive to procure in quantity, are *Princeps* (March 20), a bicolor with sulphur white perianth and yellow trumpet; *Rugilobus* (March 21), a very sturdy flower, like a small Emperor, but earlier; *Horsfieldii* (March 20), a bicolor with white perianth and yellow trumpet. This very nearly resembles *Empress*, but as it is earlier I name it in preference; *Queen of Spain* (March 27), a great beauty, clear yellow throughout, with slightly reflexed perianth, of medium size. Although not a seeder it cannot be left out; *Maximus* (March 20), a large, deep golden yellow flower of very graceful form; *Emperor* (March 30), a bold, strong - growing yellow flower with perianth slightly paler than the trumpet, a very good seeder; and *Grandis* (April 9), a very good late bicolor.

Then there are the *Incomparabilis* or chalice-cupped varieties. Of these the best is the giant *Sir Watkin* (March 20), a grand flower of rich sulphur yellow with yellow cup. It, however, produces practically no seed. Other suitable varieties of this section are *Stella* (March 21), with white perianth and yellow cup, which seeds fairly well; *Cynosure* (March 31), primrose, with a tinge of orange in the cup. Produces very little seed; *Frank Miles* (April 1), a very beautiful clear yellow flower with prettily-twisted perianth, a very poor seeder; *Queen Bess* (March 16), perianth white, with widely-expanded pale yellow cup, the earliest to bloom of the *Incomparabilis* section. The double *Incomparabilis* I have found to succeed in the grass, and their large heavy heads do not get splashed in the grass as they do in the border.

The three best are *Butter and Eggs*, large, full double flowers of clear yellow with touches of orange in the centre; *Eggs and Bacon*, white, with orange red in the centre; and *Codlings and Cream*, white, with pale yellow in the centre. They commenced to bloom together this year on March 26; none of them produce seed.

Of the *Leedsii* varieties, which are similar in shape to the *Incomparabilis*, the best are *Amabilis* (March 28), a beautiful silver white flower with long cup, producing no seed; *Leedsii* type (March 26), a small star-like silvery white flower and a fairly good seeder; and *Minnie Hume* (March 27), with white perianth and broad expanding lemon cup, changing to white, a very choice variety, seeding fairly well.

Then there is the gorgeous *Barrii Conspicuus* (March 31), with large rich yellow perianth and cup short and spreading, of the same colour, tinged on the margin with brilliant orange scarlet. It is one of the most striking of all, and although it does not produce seed it must not be omitted. *Odnus Rugulosus* (March 26) of the *Jonquil* class, rich yellow and sweet scented. *Burbidgei* type is very early and effective, and produces seed fairly well. *John Bain* (March 26), a lovely white with pale lemon cup, quite a distinct variety; no seed. *Poeticus Ornatus* (April 3), with its pure white flat broad perianth, and cup tinged with scarlet, is a free seeder and an excellent

Duchess of Westminster (April 5), but as there are so many good varieties without these it would be as well perhaps, unless money is of no object, to wait until they come down in price.

I think I have now mentioned the best varieties of *Daffodils* for naturalising, so I will just say a word or two as to the grouping and best situation for planting.

For *Daffodils* and most other spring-flowering bulbs a position should be selected where the ground is shaded by deciduous trees from the hot sun in summer. This will keep the bulbs cool during their season of rest, and the overhanging branches, though bare of leaves during

the time when the bulbs are in bloom, will act as a slight screen to save the flowers from being shrivelled up by the sun, and so be a means of preserving them in perfection for a much longer time than would be the case if they were without such shade.

A grassy slope facing north, with a screen of trees to the south, or, better still, if sheltered on all sides, is a position I would select in preference to all others, though in such a place the blooms will be slightly later in opening, the lengthened time that they will last will, I think, make full compensation for this.

W. A. WATTS.
Bronwyfya, St. Asaph.
(To be continued.)



POLYANTHUSES BY WOODLAND AT ST. ASAPH.

NOTES ON HARDY PLANTS.

DIANTHUS GALLICUS.

BY no means a common plant in English gardens is the true *Dianthus gallicus* (Persoon), the name being far more common than the reality. This is partly owing to the readiness with which flowers of *Alpine Pinks* cross with one another, so that seed saved in English gardens often comes untrue, but it is due still more to a confusion of names, *D. gallicus* having been named *D. arenarius* by De Candolle and Thory, and in this way having been thought identical with *D. arenarius* of Linnaeus (*Botanical Magazine*, tab. 2038), a native of Russia and Northern Europe, and having white flowers with a brown eye. *D. gallicus* is native only on the west coast of France, Northern Spain, as far as the Bay of Biscay reaches, and one or two spots on the coast of Portugal, being a sand-loving maritime species, never reaching far inland. The only good portrait of it I have seen is in "*Wooster's Alpine Plants*," Series I., page 113, the flower for that work having been furnished by Backhouse's York nursery. My first acquaintance with it was made nearly thirty years ago, when the late Mr. Harpur Crewe, sent me cuttings from Biarritz, which I reared to flowering, but soon lost. Since that time I have more than once brought it home from Biarritz, where it is very abundant close to the sea, growing in deep sea sand, and extending some distance into the woods of *Pinus Pinaster* which grow on the sandhills there.

The flower is uniform pale pink, very deeply incised, the height of the rather stout stalk is 9 inches to 12 inches. The grass is stiff and rather

variety for naturalising. The *Pheasant's Eye* *Poeticus*, with its slightly reflexed perianth, which blooms considerably later than *Ornatus*, is also good, and they are both cheap. *Biflorus* (April 15), as its name infers, bears two blooms on a stalk, with white perianth and yellow crown, and the double *Poeticus*, with its large *Gardenia*-like flowers, very sweet scented, which is one of the last to bloom, and likes a cool, rather damp soil.

There are amongst the newer varieties, which are more expensive, many that are excellent for naturalising, such as the splendid bicolor *Victoria* (March 21), the white trumpet *Mme. de Graaf* (April 8), and *Leedsii*

substantial for the size of the plant. In my cold garden it has seldom flowered till September, and has rarely lived more than two years. I am now growing it on a mound of finely riddled stone, where it seems happier than it has been before, though I once made a site for it under a south wall 2 feet deep in sand. It is rather tender, and a favourite food of slugs. C. WOLLEY DOD.

Edge Hall, Malpas.

HELIOPSIS SCABRA B. LADHAMS.

I WOULD strongly advise Mr. Arnott to grow this variety of *Heliopsis* in preference to *pitcheriana*; it is such an improvement in every way. The flowers are larger, the florets slightly recurve at the tips and give grace to the flower, whereas in *pitcheriana* they are rigidly erect. In colour, too, *B. Ladhams* is deeper in its orange tint, and is altogether a much better plant. In growth *pitcheriana* is a trifle taller. E. MOLYNEUX.

ANEMONE ALPINA AND A. SULPHUREA.

PERHAPS others besides myself have failed in their attempts to raise these two *Anemones* from seed. I wrote to Herr Otto Froebel on the subject, and he kindly gave me the hints appended and permission to offer them to any interested in the subject. His words are as follow: "The seeds of *Anemone alpina* and *A. alp. sulphurea* can be sown as well when just ripe, or later in autumn or early in spring. The seeds will shoot if the soil is always moist and kept in darkness. I should advise you to sow in boxes, on which you put another box of the same size, the second box also full of soil and kept always moist, so that it is impossible for the box containing the seeds to get dry and to receive any light." With this assistance I hope to be able to raise plants of *A. alpina*. I should be glad to receive seeds (fresh) of *A. alp. sulphurea* from any nurseryman who has them for sale. A. C. BARTHOLOMEW.

Park House, Reading.

SILENE ARENARIA.

OWING to the excessive rainfall of the present season results in the flower garden have not altogether been satisfactory, in fact, in many cases very disappointing. An occasional bright

sunny day encourages flower-buds to burst forth in full splendour, only too often to be disfigured, and sometimes completely spoilt a few hours afterwards by a heavy downpour of rain. Under these circumstances some things have done well, amongst them that showy little annual *Silene arenaria*, flowering, as it were, in defiance of the inclement weather, which has had such ruinous effects upon many of its neighbours. Its dwarf habit and pleasing pink flowers, so abundantly produced, make it a most desirable plant for bedding, edging, and for the rockery. When cut and tastefully arranged in small vases it is very effective, lasting for fully a week. T. B. F.

Buxted Park Gardens.

GENTIANA ACAULIS.

THERE is no more beautiful flowering plant in our gardens in early summer than the *Gentianella*. Its comparative rarity may be due to many causes, as the plant is fickle. Year by year in spring it is one of those things that are invariably offered for sale in many a market throughout the length and breadth of the land. Such plants are eagerly bought for a few pence and taken home to die. It is perplexing that one cannot lay down any hard and fast rule as to culture. Looking back over an extensive practice among hardy plants, not always confined to one locality, the great thing that stands out so prominently is that on a light or a well-drained soil, or a soil overlying the red sandstone, this fine plant has been a complete success. On the other hand, where clay soil exists the plant does not usually grow vigorously, and certainly does not flower freely. In the more heavy soils a dense carpet of small growth is often made, with little or no flower as a result. In all such cases give a perfect drainage for the bed or border, and in this way freedom to the many stoloniferous shoots that are constantly being made. Thus treated I have been most successful with the plant, even in those gardens where there was little but clay. Indeed, in one garden, not merely for such a plant but for all good things and choice bulbs, the beds had to be made throughout, and one of the preliminary items in the making was a drainage of brickbats of not less than 6 inches below the beds. Here with much else this common yet beautiful *Gentian* gave a picture of colour each year. In other instances one could form a permanent edging

of the plant with the greatest ease by simply digging up the light sandy soil, beating it down hard as though a Box edging were to be laid, and with the small often single bits of *Gentian* in position and another heavy beating with spade or a good treading to place it firmly in position. Firm planting in all the lightest soils is essential, and of the many edgings I have planted and purposely walked upon again and again I have seen no instance of disapproval. In those instances where failure has dominated past efforts I would suggest the trial of an edging to border or walk, taking out the soil and replacing it with old potting material and gravelly sand, making up the edging quite firmly by treading or beating. It is important to plant in September or October, especially October. For planting I prefer quite small pieces, and not more than three or four shoots. Gather these tightly in the left hand, place in position, and make firm at once with soil and treading. Little or no manure is required, and where soil of a light sandy nature exists the growth is rapid and continuous through the winter, as may be seen by many shoots pushing through the soil in spring. E. JENKINS.

SNOWDROPS IN GRASS.

AMONG early flowers the *Snowdrop* is, perhaps, the most welcome. Flowering at a time when gardens, fields, and forests are bare, it is all the more appreciated. It is one of the first hardy flowers to remind us that Nature's forces are at work, and will, in due time, girdle the year with flowers in their respective seasons. During the last quarter of a century the *Snowdrop* has increased very much in public favour; in many of our public parks and in private gardens large masses may be seen naturalised in the grass, where formerly nothing of the kind was attempted. While *Snowdrops* are fairly accommodating in the matter of soil, they do best in light friable loams, resting on gravel, or on a sandy subsoil, which admit of surplus water percolating readily away, and at the same time are not liable to get dust dry in periods of drought. The fact of their doing in many instances so well under deciduous

trees, is probably accounted for by the shade preventing the premature ripening of the bulbs by early drought. Clayey, heavy, wet soils, or subsoils through which water does not pass readily, are perhaps least adapted to the naturalisation of the bulbs in the grass.

In such soils, if it is found they do not increase, and more than hold their own, it is little use planting on an extensive scale. Something may be done, however, by planting in a more moderate way in cultivated ground, where the conditions can be made more suitable by adding light, friable, or sandy material, and mixing with the heavier soil. Where the conditions are found suitable as to soil and position for planting large masses in the grass for effect, the turf, if good enough to keep, should be lifted and laid aside. If the soil requires any addition in the way of leaf-mould, wood ashes, or other material, it should be spread over the surface and incorporated with the soil with a spade, or steel fork, levelling the ground afterwards to the desired form. The bulbs should then be sown liberally, and forked in to a depth of 2 inches or 3 inches, the surface being again raked over, the turf replaced, and the work finished by passing a roller over it. September or October is the best time



A WOODLAND OF SNOWDROPS.

for this work. Anything in the nature of fancy designs, straight lines, or circles, should be avoided in seeking after true natural effects when establishing masses in the grass.

The best Snowdrop for planting extensively is the old *Galanthus nivalis*, which does well and increases freely where some of the newer ones make little headway. The double-flowered variety of *G. nivalis* seems to establish itself and succeed as well as the single, though not so effective. *G. nivalis* and its varieties seem to hold their own, and multiply more freely than most of the newer sorts. *G. Imperatii*, *G. Elwesii*, and *G. plicatus* can be had in quantity at a reasonable price, and are well worth trying to establish in the grass in separate masses or clumps. *G. Fosteri* I had great hopes of, as it is a fine strong grower, seeds freely, and for a new sort could be had in considerable quantity; but, unfortunately, it seems to be liable to be decimated by the Snowdrop fungus, and with me has almost disappeared. Another variety which increases freely is the October-flowering Snowdrop, *Galanthus octobrensis*, and when it can be got in sufficient quantity promises to be well worth trying to establish in grass. Opinions differ as to this Snowdrop; I must say I agree with those who consider it a welcome addition, though some think that it is like "snow in summer," altogether out of season. The Straffan Snowdrop, a large variety of caucasus, kindly sent me by Mr. Burbidge, is making itself at home here in the grass. A small patch of it last season had every appearance of establishing itself and increasing. There are others of the newer acquisitions, which may in time be found suitable for naturalising, but at present they are too scarce, and can be better attended to, properly labelled, and increased by growing in beds or spare places in cultivated ground.

Naturalising bulbs in the grass is by no means new. Breadths of Snowdrops and Daffodils may be met with in some old places planted long ago, but still giving annual evidence that flower lovers in the olden time knew how to take a leaf out of Nature's book. One such example exists here at Dunrobin, where among some aged trees near the old castle the ground has been annually carpeted with a sheet of Snowdrops, certainly for more than 100 years, and probably much longer. There is no record or tradition as to when or by whom they were planted, but most likely for one of the Countesses of Sutherland some time in the seventeenth or eighteenth century. This old plantation has been the nucleus or parent of the considerable extensions made here from time to time, and, so far as present appearances go, may continue for generations yet to come.

D. MELVILLE.

Dunrobin Castle Gardens, Sutherland.

THE KITCHEN GARDEN.

EXHIBITING VEGETABLES.

I AM glad to notice that at nearly all our most important exhibitions collections of vegetables now form an attractive feature, and will, I feel certain, do more so in the future, but there is yet much to learn not only as to what constitutes quality in the highest degree, but in the preparation of the various specimens and the art of setting up and



WHERE SNOWDROPS THICKLY CLUSTER.

arranging a collection. What I am specially anxious to see more encouraged are mixed collections arranged for effect on a given space, such as the Royal Horticultural Society is asking for at the coming Chiswick show—of course, giving a chance to small as well as large growers in the matter of space to be filled. Everything should be distinct; then all or many of the different types would be represented and brought out, whereas in offering prizes for say six, nine, or twelve kinds only—though I would by no means like to see such classes abandoned—a few of the very choicest kinds are necessarily exhibited. Each variety should be legibly and correctly labelled, and this applies to all vegetables exhibited, either shown as single dishes or otherwise.

One of the most important regulations I should much like to see universally adopted is the number of specimens of each vegetable to be exhibited. At some of our leading shows there is no mention as to this, consequently those living at a distance are much handicapped, as the expenses of transit are considerable, and by limiting the numbers everyone would be placed on the same level as regards this. Each kind should be shown to represent a fair dish and no more. I am, of course, aware that in many places it is so, and I trust the time is not far distant when it will become general, and I feel certain that not only would this meet the wishes of exhibitors generally, but it would also simplify the details of those who are responsible for the staging.

Elstree.

E. BECKETT.

FAILURES AND SUCCESSES WITH POTATOES.

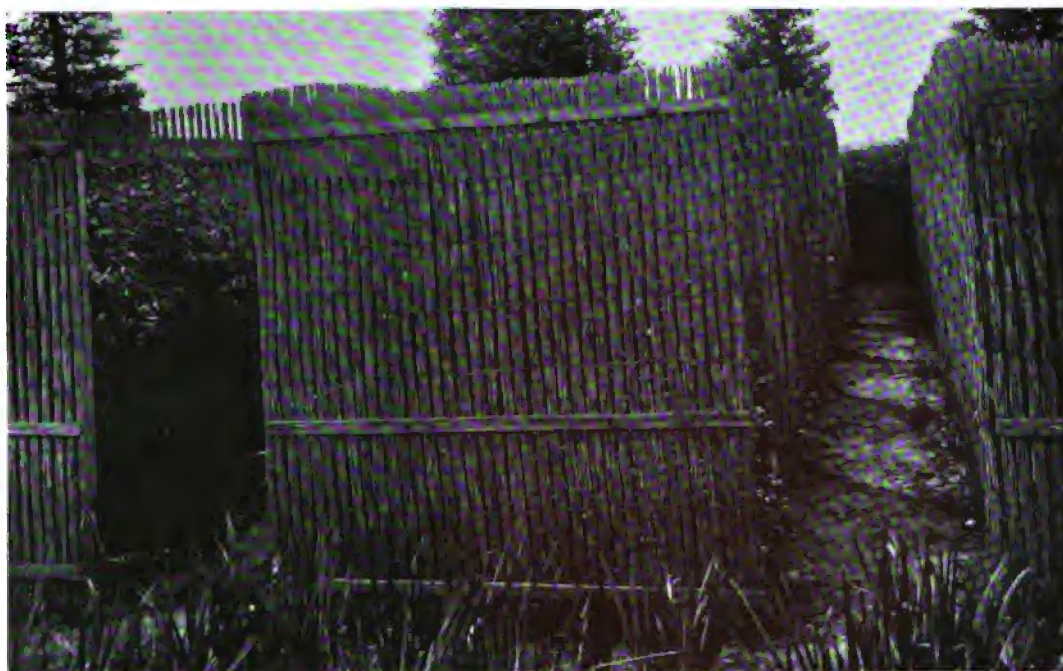
IN a recent article which appeared in *THE GARDEN* I was privileged to discuss the gloomy outlook for Potatoes generally, and having since then been engaged in the important work of lifting the crop I am able to speak now, not of anticipations, but realisation as regards this indispensable vegetable. Lifting Potatoes is not an operation requiring a great amount of skill and experience, but it may be either one of the most fascinating, or, on the other hand, one of the most disappointing garden tasks, just according as the crop turns out. To a man who takes any pride at all in vegetable culture I know of nothing more interesting than Potato digging when the roots compete with each other in the number of well-shaped tubers turned out. The back-aching part of the business is forgotten in the excitement of the moment, but how

different are the sensations of the digger when the crop is scrubby and scanty, and all the best specimens are marred by the presence of disease. Potato lifting then is a depressing task, and one that even an enthusiast fails to take interest or find pleasure in.

My own Potato lifting experience this year has been a peculiar mixture of satisfaction and disappointment, and in course of progress I have been brought face to face with problems that seem to be worthy of discussion with a view to coming at a correct solution. In the first place, no man can take a fork in hand this year to dig Potatoes without thoughts of disease. The grim ogre faces you at every turn, and whether the crop will be affected much or little is a matter of mere conjecture before lifting operations commence. It is a well-known fact that certain varieties are much more liable to disease than others, but why is this? There are various theories. Some people say that the Potatoes most liable to disease are varieties of long standing, the constitutions of which are weakened by continued cultivation and inbreeding. Theoretically there may be something in this, but it does anything except explain why British Queen should be the worst diseased variety in my collection. The Potato in question is one of comparatively modern introduction, and is possessed of vigour almost unsurpassed by any other; yet it was in British Queen that I beheld the first tell-tale blotches on the foliage, and when digging the other day it was a cheerless task, having to throw all the best tubers to the waste heap.

The fact is we have got in the habit of saying that one Potato takes disease badly, while another is possessed of power to resist the plague, and that is about all we know regarding the matter. For instance, I have had growing side by side two well-known Potatoes, namely, Sutton's Ringleader and Sutton's Ninety-fold, both of which gave good crops, but quite one-half of the latter were diseased, while of the former I hardly found a bad tuber. Why should Ninety-fold be diseased to the extent of 60 per cent. and Ringleader escape, though both were grown under exactly the same conditions? This is one of the problems regarding disease that remain unsolved, and though I shall probably grow Ringleader in the future in preference to Ninety-fold, it is quite likely that the experience of other growers will not coincide with my own.

There seems to be an impression in some quarters that vigorous haulm growth is not an indication of a good crop of tubers, but the experience of



THE PLANT SHELTER IN MESSRS. BARR AND SONS' SURBITON NURSERIES (SIDE VIEW).

successive seasons convinces me more than ever that it is impossible to have good Potatoes without strong healthy growth, and the character of the crop can be estimated by the appearance of the haulm during the growing season. By way of illustration I may add that I had a patch of the Sutton Flourball and another of Chiswick Favourite, with several rows of Syon House Prolific in between. From the very outset the growth of the first two was far ahead of the latter, and at the finish Syon House Prolific, which enjoys the reputation of being a good Potato, did not return half a crop, while Flourball and Chiswick Favourite turned out splendidly.

I cannot account for the failure unless something was wrong with the sets, which I obtained from a reliable source, and they were nicely sprouted when planted. Another variety which served me in the same way was the popular Sir John Llewelyn, which is admittedly a fine Potato, and yet for some reason or other it made nothing but spindling growth, ripened off quickly, and returned about half an average crop. If other varieties that I have named have done well, why not Sir John Llewelyn and Syon House Prolific, which are both comparatively modern and possessed of youthful vigour? Quite the best Potato I have grown this year is the Factor, which was the strongest growing variety I had. I venture to predict a future for this Potato, which in every instance that has come before my notice has produced a heavy crop of fine pebble-shaped tubers of perfect shape. Evergood ran the above very close, and in my opinion it is one of the best of the newer Potatoes. Carltonian, Progress, and General Roberts have all done exceedingly well, and in each of the above cases the haulm was strong and vigorous, while in all cases where the growth was weak and ripened off early the crop was unsatisfactory. What is the cause of this spindling haulm growth which has been so prevalent this year? The too familiar blight has apparently nothing to do with it, because before any signs of the well-known disease appeared the leaves showed a tendency to curl, dark rusty spots appeared on them, and the stems became stunted. Is the root of the trouble to be found in the old leaf-curl disease which was known to Potato growers years and years ago, but about which little has been heard of late?

The experience of 1903 supports the contention I have made on different occasions that there is wisdom in keeping abreast of the times in regard

to varieties. Potatoes of long standing, like Beauty of Hebron, Snowdrop, Early Rose, and even Windsor Castle, have suffered severely through blight, and in many cases have cropped lightly, while, generally speaking, it is the vigorous varieties of recent introduction that have successfully repelled disease and returned good crops.

In short, sentiment must play no part in Potato culture. There should be none of that sticking to an old variety because it once did well, because Potatoes, even the best of them, wear out in time, and the grower who sticks to them when that time has come simply for old association's sake is certainly not wise in his generation. Lest I be charged with not mentioning the names of many other good varieties, let me add, in conclusion, that my remarks are confined to Potatoes grown in my own garden this season.

G. H. HOLLINGWORTH.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

TREE LUPINS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—IN THE GARDEN for August 8, in the article referring to the Tree Lupin, some doubt was expressed as to its being hardy in the North. It succeeds well with us here in the Midlands, 600 feet above the sea, and it is often colder here than some parts of Yorkshire, as I have seen Gloire de Dijon Roses there in full bloom at the end of May, and ours have only just been showing bud. I always prune the Tree Lupins myself about the middle of August after they have finished flowering, and thin out all the old and decayed wood, shortening the branches to a sprig growing outwards, and reducing the bushes to about 4 feet high; then with a circle of thick rope around the branches and securing this to a stout stake, I make them secure against the strong gales we have in our exposed situation. We grow Tree Lupins as a hedge, and this year we have taken out every other old tree (four years old) and shall fill in in the spring with young seedlings, of which plenty come up round the old plants.

Edgbaston, Birmingham.

E. P. K.

A PLEA FOR DECORATIVE DAHLIAS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—As a lover of Dahlias, without being a specialist, I should like to express myself in sympathy with the remarks made in the leading article on "Dahlia Fancies" (page 161) respecting the disappearance of the old decorative Dahlias once so popular in gardens. When everything that can be said in favour of the Cactus Dahlia, it is no argument that the wide-petalled flower should be banished from our midst, because there is room for both, and to grow the former section and discard the latter looks very much like riding a hobby to death. Well do I remember the introduction of some of the varieties mentioned, including Henry Patrick, Lady Penzance, William Pearce, and Fire King, and in my own case they made quite a sensation in a garden in which, prior to their advent, single varieties were almost exclusively grown. Now, in many cases, the wide-petalled decorative Dahlia has gone under, crushed into insignificance by the modern Cactus, but in another sphere the favourite of other days still holds its own. To see the decorative Dahlias grown and appreciated as they deserve to be one should peep into wayside gardens of cottagers and amateurs, and into the domains of those who are not versed in variety names and sections, but love the Dahlia as a good old garden flower and share their affections equally between the new Cactus and the older forms. Suppose a white Dahlia is wanted for cutting or for making a display in the garden, have we anything better now than Henry Patrick? I doubt it, and, as the Editor aptly puts it, "to let this grand type of a good flower fall into disuse is to neglect some of the very best flowers we can have in our gardens."

G. H. H.

THE USELESSNESS OF MALMAISON CARNATIONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was deeply interested in the notes upon the above by "T." also the reply furnished by Mr. Ellis in defence of the Malmaison. I also note "T.'s" remarks in the issue of the 12th inst., relating to the same subject. "If pug dogs are kept for one to be in the fashion, and not for beauty," I am sure Malmaisons are quite *vice versa*. I should just like to add a few lines with regard to the Malmaison and its culture, criticised by "T."

In the first place, I quite agree with what Mr. Ellis says, and fully endorse his letter of a few weeks ago on the culture of the Malmaison, and I quite agree with "T." when he says that the Malmaison is a lot of trouble, and that a plant in a 6-inch pot carrying only one bloom is not very attractive. That is not the fault of the Malmaison; it is the fault of the cultivator. I can assure "T." that the man who only gets one bloom from a 6-inch pot is not up-to-date. I have seen Malmaisons and grown them myself with from three to six blooms on a plant in a 6-inch pot. That is when you see the beauty of Malmaisons. For my part I think of all flowers the Malmaison ranks second to none if grown well and of good size and good quality. It is without doubt a flower that is thought a great deal of, not for the sake of fashion altogether, but for its beauty and delicious scent, which, unlike that of many more flowers, is most delicate and pleasing. I would just like to add the names of a few of the best, then "T." may give them a trial and alter his harsh opinion concerning the Malmaison, of which I am a great lover. They are Nell Gwynne, Princess of Wales, Thora, Prime Minister, Mr. Trelawny, South, Calypso, Baldwin, Mercia, and Lady Ulrica.

J. S. HIGGINS.

The Gardens, Rûg, Corwen, North Wales.

MISCELLANEOUS.

A PLANT SHELTER.

MANY passengers on the London and South-Western Railway have noticed in the Surbiton nurseries of Messrs. Barr and Sons a series of enclosures that are evidently erected for the protection of plants.

Several letters having been received asking for a description and details as to their construction we took photographs of them, from which the accompanying illustrations have been made. Messrs. Barr and Sons have kindly supplied us with the following information concerning these plant shelters. They are termed "shade gates," are made simply by fastening reed mats upon a wooden framework, and may be had in different sizes.

They are erected with the idea of giving necessary shade and shelter to young plants, to protect them from the morning sun in spring and early summer while in a frozen state and the heat of the afternoon sun later in the summer. They allow a free entrance of light and air, and do not draw and soften the plants. They are also valuable for hardening off plants in early summer before bedding out, and should prove very valuable in large private gardens. They are useful for wintering Bamboos and many tender shrubs, for they afford an ideal protection from severe weather. We use them for growing Primulas, raising seedlings, for Trilliums, Cypripediums, and North American shade-loving plants. In private gardens their principal uses would be—hardening off bedding plants, wintering tender shrubs which had been planted out in summer, and planting (in summer) Polyanthus, Primroses, Myosotis, Violets, and such plants which require a certain amount of shade in the hot weather. The shade gates need never be idle. We make use of them also for wintering young Violas, &c.

The reed mats which are used to form these shelters cost only £2 8s. per dozen, full size, and they last for years. During summer they are valuable for shading plants in frames and pits. They roll up, and are of neat appearance, and four or five Archangel mats would be worn out as soon as one reed mat. For protecting plants from frost a similar mat, but the reeds rather more closely placed, is used, and Messrs. Barr find that one mat of this description will keep off as much frost as three or four Archangel mats. These thicker ones are £3 per dozen; they, too, roll up easily, and take up but little space.

GARDENING OF THE WEEK.

INDOOR GARDEN.

LILY OF THE VALLEY.

AS a cut flower this now may be had all the year round, therefore see that a sufficient number of crowns are in stock to introduce every ten days or a fortnight a successional batch. Retarded crowns will be available for some time yet, but at any season of the year crowns start more freely and uniformly if subjected to a low temperature by the refrigerating process for a week or ten days before starting to force them. After crowns are once introduced into the forcing house care must be taken to ensure that the progress be gradual and progressive until the spikes are fully developed and the bells show colour, when, if necessary, they may be retarded.

LILIUM LONGIFLORUM HARRISII.

An early batch of this Liliun should now be potted up. Place a single bulb in a 6-inch or 7-inch

pot, a compost of sound turfy loam pulled into rough pieces, with an equal part of leaf-soil and an addition of sand suits them. Make the pots half full only with the soil, on which place a little sand to rest the bulb upon; fill in around the bulb with soil pressed moderately firm, leaving its apex only uncovered, and unless the soil be very moist a watering will be necessary, after which allow the pots to drain, and, when dry on the surface, place them under a stage in a greenhouse. Cover with cocoanut fibre to a depth of about 4 inches; they may remain there until the bulbs start into growth, when they may be subjected to a gentle forcing process.

TULIPS

for early forcing should now also be boxed up. For this purpose boxes may be used similar to those used for Roman Hyacinths. A light rich soil is necessary, in which place the bulbs 3 inches apart, and only slightly covered with soil made firm by the hand. The boxes may be placed either in a cold frame or under the stages in a cold house, covered to a depth of 4 inches with fibre, and kept quite cold until root action is well advanced. If required for early flowering they must be placed in a temperature of 45° to 50° by night, and exposed to full light by day. As the blooms develop their colour they may be potted up five bulbs in a 5-inch pot, selecting such bulbs as are in an equal stage of growth. The Darwin Tulip is well adapted for pot cultivation, and forms a charming succession to the early blooming varieties, their long tough stems render them peculiarly adapted for cutting purposes, and there is not within the whole range of spring flowering plants anything more gorgeous.

CHRYSANTHEMUMS

for decoration should be under glass by this time, and as abundance of room in early vineries and Peach houses is generally available at this season there is but little excuse for keeping them out of doors. Keep the plants neatly tied up and attend to disbudding as the flower-buds develop, retaining the crown or terminal bud free from injury; the foliage must also be kept clean and healthy by applications of flowers of sulphur wherever mildew shows itself, and by fumigation with XL All Compound to rid the points of the shoots of aphids. Regular supplies of clear liquid manure must be given to the plants, and an occasional light top-dressing of Clay's or Peruvian Guano.

J. JAKES.

Wendover.

FRUIT GARDEN.

HARDY FRUITS.

TAKE advantage of the fine dry days which we are now having for gathering Apples and Pears as they become fit for removal from the trees. Choice Pears that are to be kept for a long time should be handled with the greatest care, and none but those which are of full size and sound should be placed on the shelves where they are intended to remain until fit for use. As

many of the trees, owing to the lightness of the crop, have made strong growth and the ground is now in good order, immediate attention must be directed to root-pruning, otherwise the full advantage which may be derived from the judicious performance of this operation will be lost. Wall trees of all kinds, commencing with Apricots, early Peaches and Nectarines, if

ROOT-PRUNED

with care now will fruit abundantly next year. But amateurs and others who have not seen this operation skilfully performed must not suppose that root-pruning means a general cutting away of all the roots which extend beyond a certain line, and then filling the trench in again. The proper way is to open out a trench at the extremity of the principal roots, and then with a steel fork to work inwards until a number of the strongest roots have been traced to within a reasonable distance below the surface of the border. These will then require slightly cutting back with a sharp knife, and the work of relaying in fresh loam, which must be made very firm by ramming, will follow as the trench is filled in again. If the old compost is really good a small quantity of fresh loam will suffice, and the addition of manure as a mulching only will complete the work. Where the

FORMATION OF ORCHARDS

is contemplated, thorough draining must precede all other operations. Trenching as deep as the soil will allow will then follow, and the time of planting will be regulated by the soil. On free, friable soil it may be done at once, but cold, heavy soils often first require turning over a second time and full exposure to frost. Soils of this description may be greatly improved by the addition of burnt earth or garden refuse, road scrapings, or old lime



ONE OF THE COMPARTMENTS IN THE PLANT SHELTER (END VIEW).

rubble, and in some cases it may be necessary to crop with Potatoes or other vegetables for a year before the trees are permanently planted.

ORCHARD HOUSE.

A few years ago no one thought of disturbing the roots of a fruit tree until it had cast all its leaves, but it is now generally admitted that the best results follow potting immediately after the fruit is gathered. The after treatment is, of course, different, as trees which are potted before they go to rest require the shelter of an orchard house where they can be syringed occasionally until the wood is ripe, when the best place they can occupy is a sheltered situation out of doors. Here they should be placed not too closely together, with the pots fully exposed to the atmosphere until bad weather threatens, when they may be well packed with dry Fern to secure the pots and roots from frost through the winter. Autumn is the best time for pruning, which should always follow the reducing and repotting. Trees of ordinary size which have been kept properly pinched throughout the summer require very little pruning, and on no account should the roots be shortened until the triple buds can be distinguished. If maiden trees for potting have not been selected no time should be lost in looking them out, as first comers generally take the best, but it is not always advisable to take the strongest unless the wood is thoroughly ripe and the young shoots are evenly balanced.

Madresfield Court Gardens.

W. CRUMP.

FLOWER GARDEN.

PRESENT WORK.

THERE is still certain work in the flower garden that must not be neglected because of the lateness of the season and the expectation of early frost. Sometimes frost is delayed until the end of October, and, with the hope of being thus favourably treated, the removal of seed-pods and dying flowers from Sweet Peas, perennial and annual Sunflowers, Gaillardias, and other things may continue, and if there is no frost all back flower-buds now showing will be developed upon a late batch of Cactus and Pompon Dahlias planted with a view to furnishing flowers for late cutting.

EAST LOTHIAN STOCKS.

Frames that have been occupied by Pink and Carnation cuttings that are now planted out should at once be utilised for other things. East Lothian Stock sown in boxes the early part of last month will now be ready to handle, and may be pricked out into these frames 3 inches apart each way. The soil prepared for Pinks and Carnations will do very well for them.

VIOLAS.

These are best struck during the present month. They root readily enough in cold frames in a good gritty soil, but the compost should be raised to within 1 foot of the glass and the surface dressed over with finely-sifted road sand. Choose young, soft pieces for cuttings, make the soil about them quite firm, damp over, shade, and keep close for a few days. Should mildew show itself apply black sulphur.

BEDDING CALCEOLARIAS

may now be propagated and heated in exactly the same way, very little protection during the winter being required. The variety *amplexicaulis* is more tender, and requires to be grown in boxes, which can in severe or very damp weather be brought into a dry and cool but frost-proof house. This charming old plant deserves to be more largely grown than it is at the present time.

THE IVY.

Ivies may be successfully cultivated in a purely ornamental character, but they may also be made distinctly serviceable for forming edges to paths or for covering the soil under tall trees, and much might be done in the way of growing round, bushy plants laden with blossoms and berries, for filling flower-beds, vases, or even massing in prominent parts of the shrubbery. *Hedera Helix* and the variety *H. H. rægnieriana* are capital for this work. Plants trained in this form are easily

raised from cuttings inserted now on a north border. The only point of importance is to be sure that the cuttings taken are from flowering shoots. There is no occasion whatever to graft these varieties to ensure bushy plants that will not extend more than a yard each way for many years. For winter decoration of terraces, verandahs, or beds Ivies in variety may be successfully grown in pots or tubs many years without repotting. An annual top-dressing of rich soil and regular attention with water during the summer will maintain the plants in a healthy condition.

Ashwellthorpe Hall Gardens, Norwich.

CHRYSANTHEMUMS.

THE severe gales we have experienced of late will, I fear, have done a considerable amount of damage to the growth of these plants, especially those which are being cultivated for specimen flowers. Even where every care has been taken to make them secure much injury will have been done, except to those favoured with sheltered positions. Nearly always at this season we are subjected to rough winds more or less, but seldom with such severity as of late.

HOUSING THE PLANTS.

All the plants should now be placed under glass, except those which are being specially cultivated for late flowering, and even these should be so arranged that protection can be afforded them if necessary. Light airy houses should be selected if possible, and the plants so arranged that plenty of light and air reaches them. The pots should be thoroughly cleansed before removing them inside, and all decaying foliage and superfluous growth taken off. Overcrowding should be strictly guarded against. Many are under the impression that after the plants have made their growth in the open it matters but little how they are huddled together in the houses. Early fruit houses are admirable structures for receiving the plants, especially so in the first instance, as these are generally thoroughly ventilated, and the Chrysanthemums will do the fruit trees little or no harm. For the first two or three days and nights also the ventilators should be kept open, or however carefully the plants are managed the foliage will suffer; but immediately they get acclimatised and used to their new quarters thoroughly fumigate two or three nights in succession.

Mildew also will spread on some varieties with alarming rapidity unless checked in its early stages when the plants are removed under cover, but by applying plenty of black sulphur to the under side of the foliage and maintaining a dry buoyant atmosphere this can be kept under control. Watch carefully for rust, and isolate plants so affected. Paraffin used fairly strong, if kept thoroughly mixed and syringed on the under side of the foliage, will keep it in check. Earwigs will also have to be looked for. Endeavour to arrange the plants in batches according to the stage of the bud, so that full control can be had either of retarding or pushing them forward. The Japanese and incurved sections should always, if possible, be kept separate; while the last-named always resent fire-heat, the Japanese and Anemones are benefited by the careful use of it, and judicious airing will to a very great extent prevent damping or scalding of the florets.

WATERING.

This will now have to be performed with extreme care, as the plants will not dry to the same extent as when in the open. Early morning is the best time for this, and on very drying days look over the plants again in the early afternoon. Never attempt to give water unless they are quite ready for it, but when doing so fill up the pots at least three times to ensure every particle of the soil becoming moistened. Feeding should be rather increased than otherwise, and at every other watering manure of some kind or another should be given. I know nothing to supersede that which is made from cow, sheep, and horse manure, which should be collected and put into a large tub; place fresh soot in the proportion of one bushel to every fifty gallons of water in a thin bag and thoroughly stir

before using. The whole form a safe and good stimulant if properly diluted. Weak Peruvian Guano water is also good for a change, but requires to be used only by experienced men.

E. BECKETT.

Aldenham House Gardens, Elstree.

KITCHEN GARDEN.

BEEETROOT.

THIS being a tender vegetable and liable to injury from frosts it should be lifted and stored before other root crops. A digging fork should be used to loosen the roots, for if pulled with the hand there is a risk of breaking the tap-root, thus causing the juices to exude and the full flavour and high colour will be lost. The tops must also be twisted off with the hand and not cut. The roots should be graded, stacking the largest by themselves for ordinary kitchen use and the small ones for salad. No sand or similar material is required for storing the roots in if the floor of the structure be of earth or bricks, but if a boarded floor then the roots should be laid in sand or dry earth to keep them firm. No good purpose will be served by leaving Beetroot in the ground long after this date.

TURNIPS.

It is well known that Turnips thrive best in cool rainy seasons, and the one now rapidly drawing to a close has been exceptionally favourable to quick unchecked growth, which is so essential to this valuable crop. Provided the weather remains open sufficiently long the late sowings will produce some useful roots for autumn, and the remaining ones will become strong enough to pass through the winter for yielding tender and wholesome greens in early spring, when there is often a scarcity of such. Rather severe thinning should be carried out with this batch in order to admit the maximum amount of light to the plants, thus ensuring sturdy growth.

ENDIVE AND LETTUCE.

Large plants of these should be lifted and transplanted in rough frames or pits for late autumn and winter use. The soil in which they are planted must not be too rich, or over-luxuriant growth will be made that will be unable to withstand the rigours of the winter without decaying. Lift with good balls of earth and plant in lines 15 inches apart and 12 inches in the row, and give a good watering to settle the soil, but avoid wetting the foliage in dull weather. Keep the lights off on fine days and admit some air at all times in accordance with the conditions prevailing. Abundance of fresh air is absolutely necessary on all favourable occasions, as is protection from severe frost and snow. Where large numbers are in request and the frame room is not limited it is a good practice to fill them with plants in various stages of growth to ensure an unbroken supply over a long period.

VACANT GROUND

that is not required for cropping this year should now be heavily manured, and either deeply dug or trenched as thought necessary. The rougher the ground is left at this season the better in order to expose as great a surface of the newly-turned-up soil to the action of the weather as possible. It has been abundantly proved that the best vegetables are grown in gardens where deep cultivation is practised, but the nature of the sub-soil must guide the cultivator as to whether it is advisable to trench deeply or to bastard trench.

Stoneleigh Abbey Gardens.

H. T. MARTIN.

AUTUMN GARDENING.

IT requires a good deal of skill and forethought on the part of a gardener to keep a garden bright and interesting for some weeks at a certain period of the year, and particularly so during the autumn. Some owners of gardens wish to have them at their best in spring, some again in summer, while yet others prefer them to wear their brightest apparel in the autumn months, the most difficult season of all to have a garden gay, for the selection of plants that

flower naturally in the autumn is limited. It becomes necessary, therefore, to requisition the services of those that in the usual course of things would flower during summer. For a small garden perhaps there would not be much difficulty in having a fair quantity of plants in flower in the autumn, for Dahlias, Chrysanthemums, some of the Sunflowers, Golden Rods, and Michaelmas Daisies might suffice. If, however, autumn gardening is taken up seriously, and one wishes to have the garden at its best then, one must make use of many plants that, strictly speaking, are not autumn blooming at all, and as the charm of a garden to a large extent lies in its variety, the greater number of plants one can induce to be accommodating, the more decided will be the success, the more bright and interesting the autumn garden. Those who are content with the second flowering of plants for an autumn display never know what it is to have a real garden of autumn flowers; there is no comparison whatever between results obtained by a systematic and painstaking method and the casual and doubtful second harvest of what are really summer-blooming plants.

A valuable aid to the successful planting of a garden of autumn flowers lies in taking advantage of the fact that some perennials are so accommodating as to succeed equally as well when treated as annuals, and, instead of flowering during their normal season—the summer months—they show none or few signs of blooming until the autumn, and, if they should, it is a simple plan to pick off the flower-buds. By adopting this method and also by making late sowings of annuals one at once brings into the domain of autumn flowers a quantity of those that are never or but rarely seen at that time. The gardener, too, who values a good supply of cut flowers at a season when in the natural course of things hardy flowers are fast waning, should take advantage of these accommodating plants. The garden at Hewell Grange, Lord Windsor's Worcestershire residence, is essentially an autumn garden, at its best during September and October, and Mr. Pettigrew therefore so cultivates his plants that they shall be at their best during these months. The plants he grows and the methods of culture will doubtless prove of interest to those of your readers who value beauty and brightness in their gardens in autumn.

It goes without saying that Chrysanthemums and Michaelmas Daisies of sorts (of the latter are grown Aster Amellus, acris, horizontalis, cordifolius, and varieties of Novæ Angliæ and Novi-Belgi) are extensively made use of. Sedum spectabile, too, is found to be indispensable, and also Helianthus rigidus, H. Miss Mellish, H. mollis, Cactus Dahlias, Montbretias, Gladiolus gandavensis and G. brenchleyensis, Verbena venosa, Phloxes, Erigeron mucronatus, Salvia splendens, Tea Roses, Heleniums, Rudbeckias, Hollyhocks, Lilium tigrinum, L. speciosum, Hydrangea paniculata, autumn Crocuses, and the Belladonna Lily. There is not much difficulty in obtaining all these in flower during the two months named. Verbena venosa, however, when sown outside in spring is too late altogether, so it needs to be treated as a half-hardy annual and the roots preserved during the winter. Lantanas and Pentstemons if propagated in spring come in splendidly for autumn flowering, whereas if cuttings are taken in the autumn in the usual way they will bloom in summer. Marguerite Carnations, Gaillardias, Hollyhocks, and Delphiniums (especially Queen of the Blues and D. nudicaule) may be sown in spring for autumn blooming.

The following annuals also, if propagated fairly late, are valuable in the autumn garden: Mignonette, Alonsoa Warscewiczii, Tagetes pumila signata, Brachycome iberidifolia (the Swan River Daisy), of Everlastings, Rhodanthus, Ammobium alatum grandiflorum, Helichrysum and Acroclonium, Sweet Peas and Lavatera rosea; Ipomœa rubro-cœrulea, and Torenia (sown in March and the flowers picked off), and Abutilon Boule d'Or, with handsome leaves splashed and marked with green, yellow, and cream colour, are always admired in the greenhouse or for house decoration. Vases filled with plants often add much to the variety and interest of a garden in autumn, and suitable for this purpose are Ivy-leaved and zonal Pelargoniums, Chrysanthemums, sweet-scented Geraniums, Fuchsias, Salvia splendens, Lilium speciosum and tigrinum, Hydrangea paniculata, Marguerite Carnations, and Lobelia Erinus varieties. A. P. H.

THE FRUIT GARDEN.

APPLE CELLINI PIPPIN.

WHILE I do not go the length of saying that this variety has borne well generally, I have heard many growers of Apples say that it has given them a good crop. It is the only Apple that has given me a crop this season, an old tree and several young ones have yielded a profuse crop, and in the case of the former quite profusely on the young wood of the previous summer. I am not to be understood as advocating the general planting of this variety, though it is acknowledged to be a culinary Apple of the first quality. Dr. Hogg fancied it had been raised from the old Nonesuch, because of its resemblance to it. The raiser was a Mr. Leonard Phillips of Vauxhall, probably during the last sixty years, as no mention is made of it by George Lindley in his "Orchard and Kitchen Garden." It would be interesting to know why the name of Cellini Pippin was given to this Apple. R. DEAN.

THE LOGANBERRY.

MM. CAYEUX and LE CLERC showed at the Société Nationale d'Horticulture on July 9 last a fruit-bearing branch of the Loganberry. This is the first time that this bush, which has been known for some years past in America and England, has made its appearance in Paris.

The name, which is of American origin, signifies the berry of Mr. Logan. "Berry" is the generic name in English for a number of small fruits, as the Strawberry, Raspberry, Blackberry, Gooseberry, &c. Judge Logan, the Californian nurseryman, having produced a new fruit, has created a new name for it, which he has formed from his own.

The Loganberry is a hybrid between the Raspberry and the Blackberry, and has met with considerable appreciation in the English-speaking countries to which it has spread. In 1894 Mr. E. J. Wickman, of the experimental station of California, wrote that this shrub had given proof of robust growth, and that it produced large and beautiful fruit, endowed with a remarkable flavour, partaking of the nature of the Raspberry and Blackberry. In 1897 Professor Kinney dedicated a small special bulletin to the Loganberry, and came to the conclusion that it was the new "small fruit" shrub which gave the best promise among those which had been cultivated at the station. He also mentions—and this is an interesting point to note—that they had been successful in propagating the Loganberry from seed, but that the produce thus obtained was relatively inferior.

The specimen shown at the Société Nationale d'Horticulture by MM. Cayeux and Le Clerc corresponds to the description just given. So far as could be judged the growth appeared to be

very robust. The berries were of large size, larger than the Raspberry and the Blackberry. This, no doubt, is explained by the fact that in the United States there are varieties of Blackberries which have very big berries. The greater part of those shown were not quite ripe, and had a colour similar to that of the Raspberry in the same state. One fruit which had arrived at maturity was of a very deep brown-red; it was a little crushed, which enabled us to certify that it exhaled a very appetising odour.

How should the cultivation of the Loganberry be conducted? On this point we have the evidence of different cultivators, who have given an account of their observations in several English and American publications. The following is a summary of these observations:—

"The Loganberry produces vigorous offshoots which often attain a length of 3 metres. The best system of cultivation is to train these offshoots along a wall upon wire or trellis work, leaving a space between them of from 20 centimetres to 25 centimetres. They bear fruit the second year, then wither and die. Messrs. Fell and Co., who were the first to introduce the plant into England, say that it is not even necessary to cut off the old wood after it has produced fruit. As soon as the crop is over the branches are detached and fall to the ground, and in their place the year's shoots are trained. Five or six shoots may be left to each tuft; if the tuft is very strong as many even as eight or ten may be left.

"It is well to give several waterings of liquid manure during growth, for the Loganberry, like the Raspberry, quickly exhausts the soil."

According to the American authors the shrub will never be absolutely hardy throughout the United States; the severe frosts would be prejudicial to it. But it must be remembered that the winters of a great part of the United States are more severe than ours; and it may be admitted that the Loganberry will have nothing to fear from the cold of our climate, especially if it is trained against a wall.

A similar cross to that which gave birth to the Loganberry was reproduced in England some years ago by Messrs. Veitch of Chelsea. The hybrid which they obtained was between the Raspberry (Belle de Fontenay) and a Blackberry (Rubus fruticosus), and which they named the Mahdi. It would therefore, botanically, be a variety of Loganberry. It was shown to the Royal Horticultural Society of London in 1897 and after, and since then has been placed upon the market.

The great interest in these crossings lies in obtaining a shrub which will give fruit as delicate as that of the Raspberry, and yet will continue to bear successional crops for as long a time as the Blackberry. A selection will, no doubt, permit this result to be obtained eventually. In any case, the Loganberry appears already to be a valuable acquisition, and is the most important which has yet sprung from the crossings of small fruit shrubs so far attempted, especially in the United States.—*Revue Horticole*.

THE INDOOR GARDEN.

MIGNONETTE.

FOR early spring flowering seed should be sown at once. It may be sown in the pots that it is to flower in, or it may be sown in pans and pricked off later on. The latter is, perhaps, the best method, as it can be placed on a shelf close to the glass. To get short, sturdy plants it is most essential to expose them to all the sun and daylight possible. When sown in pans for pricking off any light compost may be used, and it should not be pressed too firm or it will be more difficult to get the seedlings out with good roots. Many of our market growers grow Mignonette singly instead of several in a pot, but for this purpose the seed may be sown early in August, the plants then become strong before we get dark, dull weather. Stopped once or twice they make nice bushy plants. They

may be potted off singly or several in a pot, whichever way it is intended to grow them.

The compost should consist mainly of good fibrous loam, some well raked stable manure may be added, also a good sprinkling of sand, and for winter potting I like some lime rubbish; this helps to keep the soil sweet, and is also beneficial. If the soil is fairly dry it cannot be pressed too firm. Firm potting with good drainage is one of the most essential points in the culture of pot Mignonette. When first pricked off it may require to be kept close, and shade a little for a few days, but as soon as it has rooted into the new soil must be exposed to all the light possible.

Watering requires very careful attention. The slender thread-like roots are easily damaged either by excess of moisture or from drought, but during the winter it is better to keep the soil rather dry than otherwise. Only just sufficient artificial heat should be given to keep out frost. Mignonette may soon be spoilt by keeping it too warm, especially in dull weather. With plenty of sunlight a little more warmth may be given if desirable to force it early. Manure may be used freely as soon as the plants have made a good start, and should be continued, regularly increasing the strength as the plants advance in growth. A good liquid manure is that made from guano and soot, but this should be prepared beforehand and allowed to settle down, so that it can be used in quite a clear state. Soot-water may be used for sprinkling over the foliage if quite clear, and will help to keep off caterpillars, which are sometimes very troublesome in the spring time.

In growing what is termed Tree Mignonette a little more warmth and shade may be given during the early stages of growth; this will draw the stems up a little. Plants should be potted singly in small pots as soon as large enough to handle, and when ready for repotting cut off all the side shoots except the top one, and take out the flower-spikes. When the stem has attained to the required height about three or four of the top shoots should be left, and these may be stopped as soon as they show flower. I have had Tree Mignonette fully 3 feet high with heads over 3 feet in circumference, but it requires a great deal of care to grow such large plants. Those with stems about 9 inches high with from six to twelve spikes of bloom are not so difficult to manage. It often proves difficult to establish Mignonette in the open ground, especially in mixed borders or where there is any shade. The market growers generally sow it in small pots and plant out when well established. If sown about the middle of March it will make nice plants for planting out about the end of May, or in a sheltered sunny position it may be planted out earlier. It may require thinning out. Only about three or four plants should be left in a pot, or planted out singly in good ground they will cover a large space.

There are now many improved varieties. That known as Machet is most generally favoured by those who grow it in pots for market. It is a dwarf variety, with very thick flower-spikes. For out bloom or the garden the one originally known as Parsons' White is the best. This may now be had under various names, but it is not always easy to get the very best type. Mignonette is much inclined to vary, and it is only those who are very careful in selecting the best types for saving seed from who can keep any variety true. I should mention the Hybrid Spiral as being one of the best for Tree Mignonette. A. HEMSLEY.

SOCIETIES.

STROUD HORTICULTURAL SOCIETY.

THE two days show arranged by this society was held on the 26th and 27th ult., in the grounds of Calne Cross House, kindly lent for the occasion by E. S. Godsell, Esq., who, as joint secretary with E. C. Davis, Esq., capably arranged the necessary matters connected with the exhibition. This season the promoters of horticultural exhibitions have had to reckon with the vagaries of the weather, and unfortunately these two dates proved no exception to the rule. The afternoons of both days turned out miserably wet, and undoubtedly damped the ardour of many visitors to the show, the result being a corresponding decrease in the gate

money. It is to be hoped that this show will now prove to be an annual fixture, because of the great aid it renders to horticulturists in the county of Gloucester. Excellent arrangements had been made by the secretaries for the convenience of exhibitors, five large tents being requisitioned for the exhibits, which were numerous and well represented. The committee were fortunate in their selection of judges, who were as follows: flowers and plants, Mr. S. T. Wright, Royal Horticultural Society's Gardens, Chiswick, and Mr. Herbert Cutbush, Highgate Nurseries; fruits and vegetables, Mr. W. Crump, Madresfield, Malvern, and Mr. W. Child, Earl's Croome, Worcester; vegetable classes, Mr. T. Arnold, The Gardens, Cirencester House, and Mr. J. Pitts, Grittleton, near Chippingham. The number of exhibitors was 52, who sent 641 exhibits.

PLANTS.

Group of miscellaneous plants arranged for effect within a space 8 feet deep by 25 feet frontage: First, Messrs. J. Cypher and Son; second, the Right Hon. Sir J. E. Dorrington, Bart., M.P. (gardener, Mr. Saverger); third, Mr. Vause, Leamington.

Group of similar plants within a space 8 feet deep by 15 feet frontage: First, E. S. Godsell, Esq. (gardener, Mr. W. Hammond); second, Mr. Blackwell.

Group of similar plants within a space 8 feet deep by 10 feet frontage: First, J. W. Lane, Esq. (gardener, Mr. A. Powell); second, A. Apperley, Esq.

Six specimen stove or greenhouse plants, three foliage, and three flowering: First, Messrs. Cypher and Son; second, Mr. Vause; third, E. Calcutt, Esq.

Collection of Dahlias arranged on space 6 feet by 4 feet: First, The Vineries, Limited, Birmingham; second, Rev. S. Cornish; third, Mr. A. Edmonds.

Collection of Roses arranged on space 4 feet by 4 feet: First, Messrs. J. Jefferies and Son; second, Mr. A. Edmonds. Twelve Roses, not less than eight varieties: First, Mr. A. Edmonds. Six Roses, not less than six varieties: First, Mr. Charles Hill; second, Mr. Edward Remes.

Hardy flowers arranged on space 6 feet by 4 feet: First, The Vineries, Limited, Birmingham; second, Mr. Charles Hill; third, Mr. A. Edmonds.

Gladioli, any variety, arranged on space 4 feet by 4 feet: First, Messrs. J. Jefferies and Son; second, Mr. A. Edmonds; third, The Vineries, Limited, Birmingham.

Collection of Sweet Peas, thirty varieties, arranged on space 4 feet by 4 feet (prize presented by Messrs. Jefferies and Son): First, Mr. H. Miller. Collection of Sweet Peas, not exceeding fifteen varieties, arranged on space 4 feet by 2 feet: First, Messrs. J. Price and Son; second, Mr. Charles Smith; third, Mr. A. Edmonds.

Collection of annuals, any variety, arranged on space 4 feet by 4 feet: First, Mr. H. Miller; second, Mr. A. Edmonds; third, Mr. Charles Hill.

FRUIT.

Collection of fruit, six varieties: First, E. Calcutt, Esq.; second, Sir J. Dorrington; third, Mrs. G. Holloway.

Collection of fruit, four varieties: First, Gordon W. Canning, Esq.

Four bunches of Grapes, two black and two white: First, E. S. Godsell, Esq.; second, Mrs. Blackwell; third, Mrs. G. Holloway.

Two bunches of white Grapes: First, E. S. Godsell, Esq.; second (equal), Messrs. E. Calcutt and G. W. Canning; third, Mrs. G. Holloway.

Two bunches of black Grapes: First, Sir J. Dorrington; second, E. S. Godsell, Esq.

Peaches, dish of six: First, Sir J. Dorrington; second, Mr. E. Calcutt; third, Mr. G. W. Canning.

Nectarines, dish of six: First, Mr. E. Calcutt; second, Messrs. Price and Son; third, Mr. G. W. Canning.

[This report has been unavoidably held over.]

DERBYSHIRE AGRICULTURAL AND HORTICULTURAL ASSOCIATION.

CONSIDERING the disastrous season the exhibits generally were decidedly good. Flowers, which rank as the chief feature of the department, formed a very attractive class, and in many instances the exhibits bore striking evidence of intelligence and painstaking attention on the part of the cultivators. Although they did not constitute a very big class, Roses were well represented, some exceedingly fine specimens being in evidence. Mr. J. W. Smith of Alveston Hall gained premier honours for the best twelve Roses in the open class, whilst Mr. P. Newbold achieved similar success for twelve distinct blooms in the second division. The first prize in the upper division for twelve Cactus Dahlias was won by Mr. G. Carrington of Derby, who also carried off a similar award for six remarkably fine double Geraniums.

In the fruit section some of the produce bore ample evidence of the adverse growing weather, but a somewhat surprising fact was the large size of some of the Apples. Mr. H. D. Smith, a big prize winner, exhibited three dishes of fine Peas, which easily obtained first place, and Mr. J. H. Goodacre (gardener to the Earl of Harrington) gained premier honours for Grapes, any variety, in the open class. Mr. Hampshire, of Quarndon, showed four bunches of well grown Grapes, black and white, which the judges had no hesitation in deciding to be the best in the second division.

As in former years, a portion of the large circular tent was devoted to groups of foliage and flowering plants, the awards being given to those exhibitors who made the general arrangements for the best effect. Space was provided for seven exhibitions, for which prizes of £20, £10, £12, £8, £6, and £4 were offered for competition. Mr. J. Ward (gardener to Mr. T. H. Oakes of Biddings), who was adjudicated first for his brilliant display last year, did not compete, with the result that the first prize went to his old rival, Mr. J. Thompson (gardener to the late Mr. G. H. Turner of Littleover), for a beautiful collection of Ferns. He was closely followed by Mr. J. Holmes, whilst Mr. G. Woodgate (gardener to Sir Oswald Mosley) was placed third. The tent was rendered all the more beautiful by the exhibits of a number of the best known nurserymen and florists throughout the country.

The society awarded gold medals to Messrs. Hewitt and Co., Edgbaston, Birmingham; J. H. White, Worcester; R. W. Proctor and Sons, Chesterfield; W. B. Child, Worcester; and W. J. Brown of Peterborough. Messrs. J. Cheal and Sons, Crawley, Sussex, obtained an award of merit for a new white Dahlia named Mrs. D. B. Crane. Mr. J. L. Cartwright of Market Place, Derby, whose table decoration was much admired, was awarded a special certificate of merit, in addition to being entitled to a gold medal. The judges were Messrs. N. F. Barnes, Chester; P. Blair, Trentham; W. Speed, Penryn; J. Voss, Kedleston; F. Gilbert, Bonhill; J. Bladen, Derby, and J. Stopps, Derby.

NATIONAL AMATEUR GARDENERS' ASSOCIATION.

THE monthly meeting of this association took place on Tuesday, the 1st inst., at Winchester House, Old Broad Street, London, E.C., Mr. T. W. Sanders, F.L.S., in the chair. A capital audience was present to hear Mr. D. B. Crane's lecture on "Hardy Flowers for Exhibition." The lecturer considered at some length the methods at present in vogue for staging the many and varied kinds of hardy flowers. He said that hardy flowers should be exhibited, such a way that their beauty and usefulness in the hardy border could easily be appreciated. Too often this was the case. At local exhibitions in particular this idea was more often ignored than many were perhaps prepared to admit. Some of our leading shows were also innocent in this respect. Mr. Crane said flowers of tall and stately growth should be cut with long stems with foliage adhering in order that they might be rightly represented and the stately character seen. He emphasised the value of a proper setting-up of the different subjects in vases, and said a spike or spray of blossoms should be inserted unless the individuality, so to say, spoke for themselves. Plant developing large compact trusses of blooms should, he said, be cut with long stems and massed, in this way showing their effect in the hardy border, and contrasting with the plants of stately or elegant growth. Of the numerous plants of dwarf and procumbent growth, which it was almost impossible to set up in bunches, Mr. Crane advocated that being exhibited as growing plants. He was convinced, this was properly carried out, a greater interest would be felt in this type of plant than is now the case. There were many charming plants so well adapted to this purpose the advantage might very well be taken of exhibiting them in pans or baskets, or any other suitable receptacle. Where it was more convenient ordinary nursery beds were recommended in which to plant hardy flowers for exhibition in preference to the generally accepted hardy border. The advantage of nursery beds was the ease with which the plants could be overlooked, their needs supplied, and mulching, watering, and other items of culture attended to. Liberal mulching applied in early summer were highly spoken of, and in the case of the autumn-flowering subjects, such as the Phloxes, Helianthus, &c., a second mulching in late July had many advantages. Copious waterings in dry weather, followed subsequently with an equally copious application of manure-water, was recommended. Thinning out and staking the shoots and the removal of spent blossoms were each dealt with in turn. Deep culture was essential to success, and the free use of well-decayed manure incorporated at the time of digging was also emphasised. A selection of plants to flower in May till October was also given, mention being made of more meritorious varieties in each case. The meeting closed with a hearty vote of thanks to Mr. Crane for his interesting and instructive lecture. The monthly exhibitions continue to be highly successful, and the September meeting was one of the best. Mr. Levi Weybridge, won the gold medal for Cactus Dahlias, Mr. D. B. Crane for hardy flowers, and Mr. B. G. Sinclair, also for hardy flowers, first prizes. Mr. Planner made a charming display with a dinner-table decoration, and Mr. George Hobday, Romford, exhibited fruits and vegetables in superb condition. There were numerous other exhibits.

CROYDON AND DISTRICT HORTICULTURAL SOCIETY.

CRYPTOGAMIC plants, or the lower order of plant life, formed the subject of a lecture delivered before the members of this society at their rooms, Sunflower Temperance Hotel, on Tuesday, the 15th inst. The lecturer, Mr. G. W. T. Shrubshall, alluded to the little attention generally devoted to this race of plants. Yet they in their sphere are as useful to the beautifying of this earth, and some of them in the cellular group contributing food for mankind, as to make them worthy of deeper study and further research. The two divisions of the vegetable kingdom are the phanerogams, or flowering plants, and the cryptogams or flowerless plants, and the latter division was dealt with in this lecture. The principal feature to understand clearly is the reproduction which takes place by spores, or cells, and on this he dwelt at some length. He said it must always be remembered that the cell is the fundamental unit of plant life, and in fructification Nature ordains the division of these cells for propagation, from which emanates the perfect plant. Although the time at his disposal was very limited for such an extensive subject, yet many points were unfolded to his appreciative audience, which called forth at the conclusion a very hearty vote of thanks. The exhibits at the meeting also proved very attractive, and unanimous thanks were freely expressed to the exhibitors. Mr. A. Edwards, Ambleside Gardens, brought a good collection of Apples; Mr. E. Kromer, Bandon Hill Nurseries, bringing a flowering specimen of *Watoniana humilis*; Mr. J. Gregory, a flower of *Cercis triangularis*; Mr. A. C. Roffey, Croydon, Cucumbers, saved for seed purposes; and Mr. M. E. Mills, Coombe House Gardens, who brought varieties of Fern fronds and splendidly grown Dahlia blooms.

The next paper will be read on October 6, when Mr. J. Cheal, Crawley, will take for his subject "Horticulture in America and Canada."

NATIONAL CHRYSANTHEMUM SOCIETY.

Monday evening last, September 21, the executive committee of the above society held its first meeting of the season at Carr's Restaurant, Strand. Mr. Thomas Bevan, was well supported by his brother officers and members. The minutes of the previous meeting and correspondence occupied some considerable portion of the proceedings. It was announced that one of the society's judges, Mr. J. Smith of Mentmore, had died, a vote of condolence with his family was accordingly passed.

T. Tupper, a former member of the committee, having resigned on account of removal to the city, his place was filled by the election of Mr. Castleton to Crystal Palace.

The secretary then read the correspondence with the Crystal Palace Company, and also the agreement entered into by the company for holding the National Chrysanthemum Society's shows there during the coming season. In answer to an enquiry it was stated that the new supplement to the society's jubilee catalogue was now complete, and it was in course of printing. A few days at most would see it before its publication.

Mr. Harman Payne, the foreign secretary, announced that the French National Chrysanthemum Society would this year hold its annual show and congress at Lille on November 1st. An invitation had been received requesting the society to send a deputation from the English society, and Mr. Payne said he should be pleased to receive the names of any members wishing to form part of the deputation. It is also proposed that the French National Chrysanthemum Society shall pay a return visit to the National Chrysanthemum Society's show at Crystal Palace on November 10 being a most convenient time for this purpose.

Reference was also made to the recent publication by the French National Chrysanthemum Society of a coloured book of diseases and insect pests affecting the Chrysanthemum, with remedies suggested. The report of the American Chrysanthemum Society's show at Chicago last November has been now published, reference was also made to that report being of interest to members present. April the committee appointed a small deputation to the Ghent Quinquennial Show, and Mr. Witty gave an account of the visit, and also some particulars relating to the gardens of the King of the Belgians at Laeken. Mr. Witty also formed one of the deputation and who had only visited the Riviera, also interested the committee in his experiences of Mediterranean horticulture. These accounts were greatly appreciated by those present.

The secretary reported on the annual outing, which was held by an unusually large number of members and was socially and financially the day's proceedings proved a great success. Special votes of thanks were passed to Mr. Noble, the proprietress, and Mr. G. Stanton, the man for their kindness; the one in allowing her gardens to be placed to be visited by the party, the other for so kindly arranging the details that tended to the comfort and enjoyment of those who went. Some new members elected, and the election of the Macclesfield Chrysanthemum Society in affiliation concluded the business of the day.

The first meeting of the new season of the floral committee was held on Tuesday last, the 22nd inst., at 4 o'clock in the afternoon. The committee met for the first time in one of the smaller halls of Essex Hall, Essex Street, W.C., Mr. D. B. Crane in the chair. There was a large attendance of members, and on this occasion the election of chairman for the ensuing season of 1903 and 1904 was the chief item for consideration. After the minutes read and confirmed, the only novelties present were fitted for adjudication. The following variety was named:

H. Humphrey.—A large and beautiful Japanese flower useful form, having long recurring florets of medium health, and building a bloom of splendidly pretty curling, and protruding far beyond the petals. Colour soft yellow, pleasingly tinted coral. Late season, far prettier and more attractive. From Mr. W. Walton Leigh Gardens, Addlestone.

The election of chairman of the floral committee was quickly proceeded with. The names of Mr. D. B. Crane and Mr. J. Lyne were nominated for the position, and the result of the election by ballot Mr. Crane was declared elected.

ROYAL HORTICULTURAL SOCIETY.

SCIENTIFIC COMMITTEE.

Dr. Cooke, V.M.H., in the chair; and seven members present.

Posterior species.—Colonel Tillotson showed flowers of a new species from South America. The petals were of a pale green, passing into primrose, the stamens and pistil pink, and protruding far beyond the petals, which almost closed at the apex of the flower. Though not attractive in colour, it was thought it might be useful for seed, on account of the great substance of the petals.

Raspberry, Wineberry, Blackberry Hybrids.—Mr. H. Peerman presented specimens of the foliage (the fruits had fallen off, and not been identified) of three hybrids, Blackberry x Raspberry, Wineberry x Raspberry, and Raspberry x Wineberry. These were considered most interesting, and he was requested to again next year, each in a separate box, with both seed and foliage.

Formation.—Mr. J. Robson sent "a section from a Sycamore exhibiting the extraordinary facility with which this tree develops wood-buds from the alburnum." He had been budding on the bare space between two buds, and the bud had failed, but from the base of the bud the stock had sent out a growth "where no eye

previously existed. I have twenty-five or more examples of the same thing in Sycamores, but though I have budded many subjects I have never noticed the same thing in any other genus."

Hippeastrum Bistored.—Dr. Bonavia sent some leaves of *Hippeastrum* "covered with something that looks like scale, but which adheres so closely to the epidermis that it is difficult to remove." The scale-like blotches, on examination, proved to be not of insect formation at all, but blisters due probably to defective root-action, itself due to a check of some sort, such as cold or too much wet.

Cryptococcus on Weymouth Pine.—Mr. R. Knight-Bruce sent a specimen of bark literally swarming with the white woolly or waxy *Cryptococcus* which attacks Pines, and which, he says, is rapidly spreading, and killing plantations of the Weymouth Pine. The committee considered the case almost hopeless, but suggested spraying the trees with a paraffin emulsion. Mr. Wilks said he had but little hope in spraying *Cryptococcus*, as, unless the sprayer was peculiarly strong and powerful, the fluid would not penetrate the downy wax with which the insect covers itself over. He had known a case of a Beech tree being saved by hand scrubbing with a brush, using soft soap and paraffin emulsion; but he had never known spraying to be successful.

Discoloured Vine Leaves.—These were received from Mr. Neild, of Holmes Chapel. Dr. Cooke reports: "Vine leaves with broad irregular patches of bright colouration have been known and observed for the past half century. Sometimes the colour is yellow or becoming brown, and sometimes reddish or claret colour. In America it is known as the California Vine disease (see U.S.A. *Reports of the Department of Agriculture*, xx., 1892). This, or a similar disease, is known in Sicily as 'Folletage,' and in Italy as 'Mal Nero.' No satisfactory reason has yet been assigned for this affection, as no trace of fungi has been found, and there is no cause to suspect that fungi of any kind have anything to do with the discolouration. Leaves are constantly being submitted to the scientific committee for report as to the cause or remedy, but none can be given."

Flowering Sweet Pea.—Mr. Hunt sent a flower-stalk of Sweet Pea having seven fine blossoms.

Proliferous Helianthus.—The Rev. C. Wolley Dod, V.M.H., sent flower-heads of this, remarking that one particular plant in his garden always produces them; and that, as a rule, small secondary flowers grow out of the disc.

Campanula lactiflora, linear-leaved.—The Rev. Wolley Dod sent a curious "abnormal" form of *C. lactiflora*, which comes in small percentage from the seed of the typical form, perhaps one in 200. The linear leaves can be recognised early in the seedling stage, and I never saw intermediate forms. Analogous forms with stellate flowers are not uncommon in *Campanula rotundifolia*, and De Candolle in his "Monograph of Campanula" figures and describes one of *Campanula medium*, which he considered unique in the genus.

Silver-leaf disease in Apples and Plums.—Mr. Gaut brought specimens from an orchard of 7 acres in Yorkshire. The soil is warp-land, varying in depth from 1 foot to 3 feet within short distances, and overlying clay. The drainage is good, with drain pipes. Shelter is afforded by the fruit trees in the orchard. The altitude is nearly sea-level. The general culture has been to give a good dressing of farmyard manure every four years and lime every few years. The trees had been planted ten years, and silver leaf appeared three years ago and gets worse every year. The varieties affected are Victoria Plums, of which there are about 500 trees; and Lord Grosvenor Apple grafted on Keswick Codlin stock.

Mr. Gaut remarked that the matter was creating considerable interest in Yorkshire, and the soil had been analysed, with the following result:—

The air-dried soil contains in 100 parts—	
Water	3.10 per cent.
Loss on ignition (organic matter, combined water, &c.) ..	5.00 "
Mineral matter	91.81 "
100.00	

Containing nitrogen	0.151 per cent.
Equal to ammonia	0.183 "

The soil was free from root-fibres or any visible organic material.

It had been said by some experts that silver leaf was due to a lack of nitrogen in the soil, but the analysis seemed to show this could hardly be the case. Dr. Cooke said that the disease was so mysterious, because he could find no spores or mycelium of fungus and no bacteria. He knew of no remedy, but advised cutting out the parts affected the moment the disease was seen and burning them. (See also Royal Horticultural Society's Journal, vol. xxviii., pages 713, cxliii., and cxlix.)

Rose leaves diseased.—Mr. J. W. Scott sent three bundles of Rose leaves diseased. "No. 1. The plants are in good health, and at present there is but very little of the disease on them. No. 2 is taken from small potstuff spring grafted, and seems to develop those spots when grown in a high, moist temperature. No. 3 appears to be like the last, attacking plants that are in a soft growth, and we have it in several houses, in some cases stripping every leaf off the stem, but on taking the lights or glass off the plants recover to a great extent."

Dr. Cooke pronounced the disease in each case to be *Actinonema rose*, called by growers the black mildew. It is a fungus disease very common all over Europe, and though it may be checked by Bordeaux mixture, no actual remedy is known. It was considered to be greatly stimulated and encouraged by growing the plants too closely together without sufficient air and light, or in too humid an atmosphere. It is advised to dry the plants off and let all the leaves fall (which should be collected and burnt), and then induce them to make altogether fresh growth.

CACTUS DAHLIAS AT CHISWICK.

In compliance with a notice from the hon. secretary, Mr. P. W. Tulloch, a meeting of the committee of the National Dahlia Society was, by consent, held at the Royal Horticultural Gardens on the 17th inst. for the purpose of examining the Cactus Dahlias grown there this season for trial. The response, however, was not considerable, as only the president, Mr. K. Mawley; the secretary, Mr. Tulloch; Mr. J. F. Hudson, and Mr. A. Dean were present. Raisers and trade growers, although many of them sent plants to Chiswick for the trial, which was limited to varieties but five years in commerce, yet seem to take little interest in the Cactus Dahlia as a garden decorative flower, but devote their energies chiefly to raising weak-stemmed exhibition varieties, so many of which are useless in gardens. That is most undoubtedly a mistake, as for one grower of these Dahlias for exhibition there are a score who like to grow them as garden flowers.

The Chiswick trial comprises some 200 or 300 plants, which are grown on a long south border in rows of four plants. All of them were received too late to be got out in good time, and they are rendered later by having had a somewhat severe thinning. Many were not in flower on the 17th inst., and it will, if frost spares them, be the middle of October probably before they are at their best. One object of the meeting was to select the variety held at the time to be the best for garden decoration. A prize of 10s. 6d. being offered for it by Mr. A. Dean, some half dozen were selected for consideration, but the prize was eventually unanimously awarded to Amos Perry (Hobbies and Co.), a bright scarlet flower of good size, standing well up on stiff stems. The variety should be first-class for garden decoration, although the flowers would not now be regarded as of exhibition merit. Other very good varieties were E. Needham, maroon-crimson; Aunt Chloe, mardon; Peach, white; Mr. H. A. Neede, crimson, flushed violet; Winsome, white; Mrs. Spencer Castle, pale peach and primrose, flowers well thrown out, though stems were rather weak.

OBITUARY.

JAMES SMITH.

By the death of Mr. Smith the rank of British gardeners has been rudely broken, and we mourn the loss of one of her oldest and best representatives. We extend to his widow and children our sincere sympathy. It is almost impossible to realise that Mr. Smith of Mentmore is not still with us. It was only on the 11th inst. that he attended the Chiswick trial of Potatoes, when all were pleased to remark how well he looked after his recent indisposition, and he himself said that he never felt better in his life. He was taken ill with a chill while visiting friends in Scotland, and before Mrs. Smith could reach his bedside he passed away on Friday night, the 18th inst. In 1869 Mr. Smith went as gardener to Lord Gainsborough, and was transferred a year or two afterwards to the responsible charge at Mentmore. His career since then is well known to the gardening public by the work he was privileged to carry out, first for Baron Rothschild, and afterwards for the noble employer in whose service he died—Lord Rosebery. As a landscape gardener the improvements effected in the pleasure grounds at Mentmore will bear witness to his skill. In the culture of plants, more especially serviceable decorative ones, he was excelled by few. In the kitchen garden he was one of our soundest and best authorities, and in the important matter of salad culture he had few equals. But probably the fruit department of the garden had the greatest charm and attraction for him, and it is in this connexion that his name will be longest remembered, both as a cultivator and an expert judge. With the help of Lord Rosebery he was the pioneer of orchard planting on a large scale for commercial purposes in England during the past twenty-five years, and the orchards of Apples and Plums at Mentmore will be for many years a testimony to his skill and industry as an orchardist.

On more than one occasion he has read most useful papers at the meetings of the Royal Horticultural Society in London, of which he was a Fellow, as well as an active member of the fruit committee. He was a zealous member of the committee formed to inaugurate the gardeners' dinner to be held on the 29th inst. in association with the great exhibition and congress of fruit and vegetables held by the Royal Horticultural Society at Chiswick Gardens, and was to have been one of the vice-chairmen. This committee was represented at his funeral on Thursday by many members. A beautiful wreath was sent on their

behalf. A portrait of Mr. Smith appears in our supplement.

It is twenty-nine years since Mr. Smith took charge of the gardens and the extensive outlying orchards at Mentmore, and from first to last there has been a gradual improvement in all departments, with the result that few gardens can equal the outcome of his care and skill. At the time of Mr. Smith's appointment I was quite a youth serving in the gardens, but how different was their appearance then.

Mr. Smith undertook his important charge when everything appeared against him, and for a long time I know he had to face many obstacles and disappointments. He, however, was the last man to be daunted, and his perseverance became patent to those he served so well and faithfully. Few men had a better knowledge of hardy fruit, many acres at Mentmore being devoted to Plums, Gages, Apples, Cherries, &c. In each department everything was managed well, and the best results secured. Mr. Smith was devoted to his profession, and his advice was often sought and not in vain. As a judge at the leading exhibitions, both in Scotland—his native land—and England, he was in great request.

For some years past Mr. Smith had not enjoyed robust health, which caused him to lay on one side his ready pen on all horticultural matters, but his notes formerly were read with keen interest and profit by many gardeners, young and old. By myself, his death is much lamented, having known him so intimately for many years, and in common with many others was looking forward to meet him once more at the coming gardeners' dinner.

Mr. Smith leaves a widow and a grown up family, and I am sure all who have the pleasure of knowing them will join me in expressing the greatest sympathy in their loss.

Goodwood.

RICHARD PARKER.

CHARLES MARR.

THIS veteran gardener died on Wednesday, the 16th inst., in his eighty-sixth year, at Bagshot, where he had lived for the past few years on a generous pension given to him by her late Majesty Queen Victoria. He was kitchen garden foreman at the Royal Gardens for fifty-two or fifty-three years, and had served under four head gardeners, namely, Messrs. Ingram, Rose, Jones, and Thomas. Charles Marr was an original and interesting personality, and must be well known to many hundreds of gardeners at home and abroad who have had the privilege of working in the Royal Gardens during some portion of that long time. He was engaged by Mr. Ingram soon after the formation of the Royal Gardens, and nothing used to please him more than to relate his recollections of the frequent visits of her late Majesty and the Prince Consort to the new gardens. It was not till the time came when he could not get about that he gave up his position as kitchen garden foreman. He was then about eighty-two.

Native of Coldstream, in Berwick, he possessed all the characteristics of a sturdy Scotman—large of frame, blunt of speech, but with a kind heart. Few men stuck to their work better than Marr. He never knew a day's illness during his life at Frogmore, and, I think, never took a holiday, with the exception of a day once in two or three years. Thus has passed away full of years and honour a man who served his Queen and generation well, and for whose memory a kindly thought will be expressed by all who have known him.

International Exhibition at Düsseldorf.—The programme of the International Art Exhibition, which is to take place at Düsseldorf in 1904, contains particulars of the department devoted to gardening. It may be obtained post free from the following address: Geschäftsstelle, 28, Schäferstrasse, Düsseldorf.

The Garden City.—We have received the prospectus of the First Garden City, Limited, formed for the object of building an industrial town on an area of 3,800 acres, which has been

purchased for this purpose near Hitchin, thirty-four miles from London. The prospectus is at present only being issued to the shareholders of the Pioneer Company, members of the Garden City Association and those who have shown some interest in the movement. There will be a public issue in a few months, which will be properly advertised. A Press view of the estate will take place on Tuesday, October 6. On October 9 and 10 there will be a public inspection of the site. The Right Hon. Earl Grey will preside at the luncheon on the former date.

Pelargonium Tom Thumb.—If this should meet the eye of anyone possessing this old plant, I should very much esteem the gift of a few cuttings.—T. SMITH, *Daisy Hill Nursery, Newry.*

National Dahlia Society.—The following letter has been addressed to the committee of this society by the honorary secretary, Mr. P. W. Tulloch: "During this my first year as secretary of the National Dahlia Society I have been considerably impressed by the fact that whereas the number of applications for schedules from non-members since January has reached thirty-five, in only four cases have the applicants subsequently joined the society, and in looking through the list of applications received by Mr. J. F. Hudson in 1902 and the preceding years I find the proportion to have been even less than this. The above fact suggests two reflections to my mind—firstly, that these persons are Dahlia growers, and are inclined to become members in order to exhibit at our shows; secondly, that having seen our schedule they do not consider the prizes sufficiently tempting. There is without doubt a large field for recruiting amongst gentlemen's gardeners and amateurs of the industrial and trade class, who grow a limited number of plants; but these will not join unless the prize money offered is sufficient to cover the expense of getting to and returning from the show. I therefore wish to propose at the next meeting of the committee that certain classes at present included in the schedule be abolished, and that the prize money, plus something in addition, which, I think, we shall be warranted in offering, be transferred to other and more popular classes. I much regret being unable to suggest better prizes in the open classes, but am sure that our professional supporters, who have been so generous to the society in the past, will cheerfully forego any additions to prizes in this section at present, if they are of opinion that the above suggestions are in the true interest of the society."

Broughty Ferry Horticultural Society.—Under the auspices of this society a lecture on "Fruit Culture" was delivered at Broughty Ferry, N.B., on September 12, by Mr. William Williamson, horticultural lecturer to the East of Scotland Agricultural College. Mr. Williamson is well known as a practical gardener, and his treatment of the subject was very satisfactory to the good audience which assembled to hear him. There was, in addition, an exhibition of fruit and other horticultural produce sent by the members.

A valuable Orchid.—*Zygopetalum roeblingianum*, sold at Messrs. Protheroe and Morris's rooms on Friday, the 18th inst., as a donation from C. G. Roebing, Esq. to the building fund of the new hall of horticulture, brought fifty guineas, Sir Frederick Wigan, Bart., being the purchaser, and the auctioneers foregoing their commission under the circumstances. This *Zygopetalum* is a new hybrid raised by Mr. H. T. Clinkaberry in the gardens of C. G. Roebing, Esq., of Trenton, New Jersey, U.S.A., and was awarded a first-class certificate by the Royal Horticultural Society's Orchid committee when shown by Messrs. Sander and Sons at the last Drill Hall meeting. The parents are *Zygopetalum rostratum* × *Zygopetalum Gautieri*. This magnificent new and distinct Orchid is the only one of its kind in Europe, and is flowering for the first time in this country.

New park for Glasgow.—It is announced that Mr. A. Cameron Corbett, M.P. for the Tradeston Division of Glasgow, has decided to present that city with the mansion house and a portion of the estate of Thornliebank, where he

has at present his residence, for the purpose of a public park. It is understood that the portion of the estate to be handed over comprises upwards of 140 acres, and that both the mansion house and the land are to be gifted in perpetuity. The cost of the mansion house was £30,000, and the portion of the estate gifted for the park is worth at least £24,000 more, so that the gift is truly a munificent one. The new park will be a great advantage to the rapidly increasing population in the Pollokshaws direction, and, should the tramway be extended to the park, as is proposed, a great boon to many others.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire to know no matter what the branch of gardening may be, and will object will make a special feature of the "Answers to Correspondents" column. All communications should be clear and concisely written on one side of the paper only, addressed to the EDITOR OF THE GARDEN, 20, Tavistock Square, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender required in addition to any designation he may desire to be used in the paper. When more than one query is sent, it should be on a separate piece of paper.

Names of plants.—C. B. M.—Either *Clematis vitalba* or *C. coriacea* odorata of gardens. If the first it is a free-growing climber, whereas *C. coriacea* does though it reaches a height of 6 feet or so, does not climb. Too much shrivelled to say with confidence.—A. B. Numbers were mixed. Plant with succulent leaves of pink flowers is *Sedum spectabile*; red flower is *Red Valerian* (*Centranthus ruber*); variegated about as poor a specimen to say; send flowers. Others next week.

Quick-growing trees (IGNORAMUS).—The rapid-growing trees likely to suit your purpose are *Asplenium platyneuron* (Norway Maple) and its varieties; *Acer platanoides* (Sycamore), of which there are several forms; *Platanus acerifolia* (London Plane); *Populus* (*Poplar*), sorts especially; *Populus alba* (Able); *Populus nigra* (Black Poplar); *Populus fastigiata* (Lombardy Poplar); but, above all, that often met with in nurseries as *P. canadensis*, which is by botanists referred to as *P. deltoides*. These known *P. canadensis* aurea and *P. canadensis* nova are equally in growth. In fact, to furnish a screen of trees as quickly possible there is nothing to equal this last section of *Populus*. The common False Acacia, (*Robinia Pseudacacia*), grows quickly when young, and affords a pleasing variety of the others.

Profitable hedges (E. RICHES).—Where hedges are simply required as wind-breaks in plantations of trees there are many kinds which can be utilised in this way, but with due care can be made to yield crops of saleable value. Filberts, for instance, afford good protection, and when established will often produce valuable supplies of nuts. The best I have tried for the purpose are *Conford*, the *Frizzled Filbert*, the *Lambert Filbert*, and *Pearson's Delia*, all of which are abundant croppers and of suitable vigorous habit. They must, however, be pruned systematically, as they are not adapted for the ordinary method of hedge trimming, and the chief difficulty is to keep them sufficiently dense to serve as adequate wind-breaks and procure fair crops of nuts, for the two conditions are rather opposed. Damsons form useful hedges, especially the *Prunella* or *Shropshire Damson*, which is rather more compact in growth than *Crittenden's* (or *Farleigh*). *Bradley's King* of the Damsons is also adapted for the same purpose. They also are preferably pruned than trimmed with a hedge-saw. By far the best cropping tree for hedges is *River's Early Prolific Plum*, but it needs much attention to keep it dense and compact to the base. Other Plums that can be planted in the same way are *The Carr*, *Diamond*, and the *Kentish bush Plum*. I have not found Cherries so satisfactory for hedges as either Plums or Nuts, but the *Wye Morelle* can be formed into a neat but not very dense hedge. Some varieties of Apples are adapted for the same use, the best I have tested being *Tom Putt*, *Belle Dubois*, *Early Rivers*, *Lord Grosvenor*, and *Gold Medal*. Of *Pears*, *Beurre Hardy*, *Vicar of Winkfield*, and *Vermilion* can also be utilised. The best plan is to start all these as maiden trees in well-drained and fertile soil, which should, if necessary, be enriched with liberal dressings of old manure. The first season after planting they must be cut down low enough to induce the basal buds to start, so that the plants may be well furnished from the bottom. Two feet to 3 feet apart will suffice for the Plums and Damsons; the Nuts, Cherries, Apples, and Pears may be allowed more space, according to the strength of the varieties. It must be remembered in subsequent treatment that the trees grown under such crowded arrangements will need liberal supplies of manure, also that the ground on each side should be kept clean and cultivated to quite 3 feet from the stems.—R. L. C.

GARDENING APPOINTMENT.

MR. W. A. COOK, formerly of Compton Bassett, has been appointed head gardener to Colonel Simpson, Shirley House, Shirley, Croydon, and enters on his duties on October 1.

* * * The Yearly Subscription to THE GARDEN is: *Island*, 15s.; *Foreign*, 17s. 6d.

THE GARDEN

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[OCTOBER 3, 1903.]

FRUIT AND VEGETABLE SHOW AND CONFERENCE.

ON another page we have given as full a report as possible of the fruit and vegetable show which was held during the present week in the Chiswick garden of the Royal Horticultural Society.

The show was a surprise and a delight. I anticipated in this year of fruit plenty a miserable and uninteresting display, but quite the reverse happened, thanks to the skill of the British gardener and imposing exhibits from the leading fruit nurserymen. The largeinery was crowded with exhibits—most uncomfortably so, and several tents were filled with produce that for quality has been rarely surpassed.

In the afternoon a conference was held under the chairmanship of Mr. George Bunyard, at which much information was forthcoming on various aspects of vegetable culture, and immediately before, the committees of the society, at the invitation of the council, met together for the last time at Chiswick. It was a parting with the historical garden which has been the scene of many memorable gatherings, and Sir Thomas Hanbury, the owner of the late Mr. Wilson's garden at Wisley, the recipient of the Victoria Medal of Honour, as some recognition of so interesting a gift. Sir Trevor Lawrence gave a brief sketch of the history of the Chiswick Garden, alluding to the great work of the society in its early days, to the Hall approaching completion, and to the new home at Wisley, where the practical work of the society will be continued under better conditions than exist in a London suburb.

Mr. Bateson, F.R.S., congratulated the Fellows on acquiring the garden at Wisley through Sir Thomas Hanbury, and hoped the scientific and experimental aspects of horticulture would not be lost sight of, and with his remarks we heartily concur.

Before the large gathering of horticulturists dispersed Sir Trevor Lawrence presented Mr. Thomas Humphreys, assistant superintendent of the Chiswick Garden and secretary to the Floral Committee, with many gifts, including an illuminated address, as an expression of hearty goodwill from the Floral and Fruit Committees, on his appointment as curator to the Birmingham Botanic Gardens. Mr. Humphreys received many tokens of the esteem in which he is held by all who have

been brought into contact with him in his official duties.

Thus ended an interesting and a never-to-be-forgotten day. It was a fitting close to the history of the Chiswick Garden, which is, in a degree, the history of horticulture in Great Britain. Another page in the society's history is to be opened, and we hope that a great practical and experimental work will begin in that beautiful Surrey retreat which we knew so well as the private garden of one of the strongest supporters of the Royal Horticultural Society in the old days, the late Mr. G. F. Wilson.

A GREAT GARDENERS' DINNER.

THIRTY-SIX years ago a great gathering of gardeners was held in London. It occurred to Mr. A. Dean that a repetition of that dinner would be acceptable to the present generation, and the result at the Holborn Restaurant on Tuesday last was a complete success. The chair, in the regrettable absence through illness of Mr. Leopold de Rothschild, who had kindly consented to preside, was taken by Viscount Duncannon, who was supported by Sir Trevor Lawrence, Bart., and a host of men familiar in the horticultural world, besides, of course, gardeners from all parts of the United Kingdom. There were about twenty speeches, some audible and some otherwise, but in spite of this and a sweltering heat the proceedings were marked by an enthusiasm that astonished those to whom public dinners have little charm. The toast list contained the names of some of the best known of English gardeners, whose exhibits at Chiswick showed their practical skill in the cultivation of fruit and vegetables, and the speeches were marked by a delightful freshness, and in a few instances real eloquence.

The Rev. W. Wilks made a strong appeal to complete the Hall and equip the garden of the Royal Horticultural Society, and Sir Trevor Lawrence received a warm welcome. It was an evening of speeches, which another year, if such an event as that of Tuesday evening is repeated, must be severely reduced. The committee, whose portraits we published last week in a special supplement, have worked hard to bring to a successful issue this gathering together of gardeners to meet old friends and make fresh acquaintances. Mr. Owen Thomas was chairman of the committee and Mr. A. Dean the hon. secretary.

It was, we repeat, a great gathering of gardeners, and taking into consideration the immense attendance in one room, the King's Hall of the Holborn Restaurant, the proceedings passed off pleasantly, and are not likely to be forgotten by those gardeners who were

able to be present. A report will be found on another page.

The Dean of Rochester, whose affection for gardeners and gardening has continued through a long and interesting life, was through illness unable to attend, but he sent a letter to the secretary, which was read at the dinner. We make the following extract:

"I have been anticipating long and anxiously a meeting with a representative body of those men among whom I have found the most genial friendship and happiest enjoyment of my life. Will you tell them that with an old man's blessing and from a brother's heart I pray they may ever cherish and communicate to others that love for a garden which brings health to the body, peace to the mind, and thankful worship to the soul. May the words spoken by my beloved friend, Thomas Rivers of Sawbridgeworth, be as true to them as they have been to me: 'Your delight in the flowers will never leave you.'"

Mr. Leopold de Rothschild wrote a long letter regretting his enforced absence. We take the following words from his communication:

"I cannot refrain from expressing the sympathy I have for your craft. This great gathering of men following the same occupation, coming from all parts of the United Kingdom to meet in friendly intercourse, is a testimony to the value of the early friendships began in the bothy and continued through life. I have noticed how anxious every gardener is that the man whom he has taught should succeed well in life, and how, when he has succeeded, he comes back with feelings of affection and regard to the place where he first received garden education; and then there is that pleasing interchange of knowledge and of new specimens, all of which proves that there is no petty jealousy in men of your occupation. This may be due partly to your studious habits and to your interest in the world of science, but I am inclined to think that it is chiefly due to the softening influence of Nature which brings harmony into your lives as it brings harmony into the gardens that you tend."

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London.

ERYNGIUM AMETHYSTINUM.

ENCLOSED are two or three stalks of *E. amethystinum*. The colour of the heads is not so deep

and rich as it would have been if the season had been more sunny. It ought to be the rich dark blue of burnished steel. To those who like plants under their true name it is provoking to find how many mongrel Sea Hollies are sold in nurseries as *E. amethystinum*. My experience is that five out of six are wrongly named. The most common substitute is *E. oliverianum*, itself a garden hybrid, according to E. Boissier, though of uncertain parentage. This hybrid occasionally makes a few fertile seeds, which vary from the parent and get different unauthorised names in nurseries; often a Latinised nurseryman's name tacked on to *E. amethystinum*. I wish gardening journals would express disapproval of this reckless naming. I have appealed to some nurserymen in vain, as they often tell me that the name they give was "approved at Kew."—C. WOLLEY DOD, *Edge Hall, Mulpas*.

ASTER WINNIE WEAVER.

The enclosed spray of white seedling Aster may interest you. A small piece like this gives, of course, no idea of its appearance in the garden. As a matter of fact, I find it to be the best looking garden plant of all the white Asters I have tried, except such as *Vimineus*, which is so much later. This seedling I have had for about four years. It grows 3 feet high and no more, consequently is manageable without staking. One thing about it that I like is that the centres do not turn black as so many whites do. This blackness spoils the appearance of the bush—at any rate to my fancy. I call this Aster Winnie Weaver.—T. J. WEAVER.

A beautiful flower, white, except for a faint blush tinge, with rich yellow centre. The blooms are large and very freely produced.

THE WILD HOLLYHOCK.

I do not know whether wild Hollyhocks are common. If not you may perhaps be interested in seeing the enclosed, which I have cut from a plant brought from Syria two years and a half ago. I dug it up in the fields not far from Beirut, and it has flourished even in our northern climate. It was in a pan in the open for the first winter, and then in a border. I have now moved it to the wild garden, where its graceful spikes, about 5 feet long, are beautiful and interesting. My Hollyhock was in flower in April in its native haunts. It flowers in the autumn here.—(Mrs.) E. B. BACKHOUSE, *Hurworth Grange, Croft, Darlington*.

HYDRANGEA PANICULATA.

I am sending you a few blooms of *Hydrangea paniculata*, which is making a very fine show at the present time. Many of the individual plants are carrying from nine to twelve blooms. The panicles incline away from the stem, giving the plants a more graceful appearance.—C. J. ELLIS, *The Warren House Gardens, Stanmore, Middlesex*.

The panicles of bloom were very fine, and showed well the value of this plant for early autumn.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 6.—National Chrysanthemum Society's Exhibition (three days).

October 13.—Royal Horticultural Society's Drill Hall Meeting; Horticultural Club, Hotel Windsor, lantern lecture by Mr. Charles E. Pearson on "Bird-nesting in Southern Lapland."

October 14.—East Anglian Horticultural Club Meeting.

October 27.—Royal Horticultural Society's Drill Hall Meeting.

November 11 and 12.—The Liverpool Horticultural Association's Chrysanthemum and Fruit Show.

Argemone grandiflora.—In THE GARDEN of September 12 *Argemone grandiflora* is mentioned as rarely grown. Some of your readers may be interested to hear I grew it in the North Island of New Zealand from seed sown in the open ground.—(Mrs.) F. G. SHIELDS.

Pompon Chrysanthemum Mme. Ed. Lefort.—This is a plant of Continental origin as its name suggests, and is one of the best early-flowering Pompons that the French raisers have ever sent to us. I have never known the plant to fail in any respect; in fact, it may be regarded as one of the most consistent sorts in cultivation. Tried in several positions and in a variety of soils the plant does well, and rewards the grower with a very free and beautiful display of blossom during September and October. The plant should not be disabused, in which case its blossoms, with fimbriated florets, are developed in handsome sprays, the whole plant making a compact mass of flowers. The colour may be described as orange-yellow, tinted and suffused a shade of crimson-red—really an attractive flower. Habit dwarf and sturdy, and constitution robust. Height slightly under 2½ feet.

Pompon Chrysanthemum Anastasio.—This is a very beautiful early-flowering Pompon that has stood the test of time remarkably well. The plant was raised by the late Mr. A. Salter, who also gave us Early Blush and Mrs. Cullingford, the latter being one of the best early October flowering sorts at present in commerce. The variety under notice is a plant of very dwarf habit, its growths being bushy and sturdy, and its constitution most robust. There is no other Pompon sort of a similar colour, soft violet-purple tipped with gold accurately describing the flowers. Their form is perfect, and each blossom is born on a sturdy footstalk, and when the plant is at its best it represents a compact mass of flowers.—D. B. C.

Lonicera chinensis.—Never have I seen this charming Honeysuckle flowering so freely or its fragrance so pronounced as I recently saw it in Lord Battersea's garden at Overstrand. Growing over a stump of a tree in the most luxuriant fashion it was, indeed, a plant to make use of for September. This Japanese Honeysuckle at times goes under the name of *japonica* as well as *chinensis*. In any case its merits well deserve notice, and being practically evergreen it is all the more desirable.—E. M.

Allamanda violacea.—On a recent visit to Kew I was particularly struck with a fine form of this *Allamanda*, which was and had been for some time flowering in the T range there. While all the other members of the genus bear flowers of some shade of yellow, in this they are of a rosy purple hue. It is a native of Brazil, was introduced many years ago, and subsequently lost till reintroduced to Kew through the Botanic Garden, Durban, in 1888. I well remember the first flowers that opened in the autumn of 1889, and the attention they then attracted. While many of the garden varieties of *Allamanda* have afforded ample ground for controversy as to their distinctness or otherwise from each other, there is nothing of the kind about *A. violacea*, for with no other member of the genus can it in any way be confounded, suggesting, as it does at first sight, a *Dipladenia* rather than an *Allamanda*.—H. P.

Arbigland Gardens, Dumfries.—The fine gardens of Arbigland, the property of Colonel C. E. Blackett, are, through the kindness of the proprietor, opened to the public on two Sundays in autumn, when the garden is at its best. This year the number of visitors who took advantage of the privilege was larger than ever before, and it is gratifying to learn that they conducted themselves admirably. The privilege is highly appreciated, and those who visited the gardens were much pleased with the display of flowers and plants.

Rose Pauline Bersez.—It appears to me that this pretty novelty is nearer the Teas than the Hybrid Teas, as the flowers are smaller and the clusters much resemble those of Tea Roses. The colour, too, is so delicately Tea-like in its tint, creamy white, shaded daffodil-yellow. The variety

is very free-flowering, of good, vigorous growth, and it is certainly a novelty worth planting.

Craigielands Estate Cottage Gardens.—Following her laudable practice for several years, Mrs. Smith, of Craigielands, Moffat, again offered prizes for the best kept cottage gardens in the village and estate of Craigielands, Moffat, N.B. Although the season has been a most unfavourable one in the Moffat district, where there has been a very heavy rainfall, the gardens inspected by the judges were, as a whole, highly creditable to the cottagers. The first prize was awarded to Mr. Archibald Steel with an admirably cultivated garden, the other winners being: Second, Mr. Thos. Rankin; third, Mr. F. Johnston; fourth, Mr. Wm. Watson. Mrs. Smith's kindness in giving these prizes has done much to foster gardening in the neighbourhood.

Dundee gardening societies' meetings.—Two Dundee horticultural associations have had very satisfactory annual meetings recently, and their prospects for the coming year are very promising. On the 21st ult. the Lochs Horticultural Society held its meeting in the Union Hall, Dundee, when the treasurer and secretary submitted reports which were considered of a satisfactory character. The attendance of members was large, and augurs well for the future work of the society. Mr. Alexander Jolly was appointed president, Mr. William Robertson secretary, and Mr. Charles Robertson treasurer. On the 21st ult. the Clepington Working Men's Gardens Association, a flourishing organisation which has been in operation for more than twenty years, had its annual meeting in Dundonald Street Hall. Although the annual report showed a small decrease in the funds, it was considered gratifying, seeing that there had been a considerable amount expended on improvements on the gardens. The following office-bearers were appointed: Mr. John Chaplin chairman, Mr. A. H. Rea secretary, and Mr. William Gall, treasurer.

Lotus jacobaeus.—Years ago this was a rather popular plant for greenhouse decoration, but nowadays it is very seldom seen, though it is decidedly pretty and quite distinct from any other occupant of that structure. It forms a much branched but slender growing plant, with light compound, hoary leaves and a profusion of fish-shaped blossoms of a deep purple colour—in fact, almost black. These flowers are borne in clusters towards the points of the shoots. Seeds are readily obtainable, and if sown early in the spring they will yield plants that flower well in the summer and early autumn months, either planted out in a warm border or grown in pots in the greenhouse. When plants are raised from seeds the progeny shows a certain amount of variation, some being a good deal superior to others. In the best forms the flowers are of a rich velvety hue, but in others they are tinged with green, and much less effective. Cuttings are not at all difficult to strike, and this is the method sometimes employed for the increase of the deepest coloured kinds. Spring is the best season for taking the cuttings. This *Lotus* is a native of the Cape de Verde Islands, and has been long known. A second species from Teneriffe is *Lotus peliorhynchus*, whose long, trailing shoots are furnished with scarlet flowers, somewhat suggesting a small bloom of *Clianthus puniceus*. This last-named *Lotus* forms a handsome basket plant for the greenhouse.—T.

Two beautiful Clematises.—One is *Fairy Queen*, with large, well-formed blooms of a lovely pale flesh colour, with pink bars. As this variety partakes a good deal of the patens character, it should be remembered that the flowers are borne on the ripened wood of the previous year, and therefore only the exhausted wood of the previous year should be cut away at the time of pruning in autumn and winter. A red *Clematis* (Jackmanni) is being distributed for the first time by a French firm, and it is said to be a sport from the well-known C. Jackmanni, the flowers being of "a beautiful deep velvet red colour." This will be looked forward to with some interest, though in all probability blue of some shade, whether delicate or deep, will always be the favourite colour in the *Clematis*.—R. DEAN.

A new Carnation.—Messrs. William Watson and Sons, Clontarf Nurseries, Dublin, write: "We note in your report of the Dublin show (page 192) the desire is expressed to know the name of a new seedling Carnation exhibited by us. This is Mrs. Lora Armstrong, which was recommended the certificate of the Royal Horticultural Society of Ireland at that show by the judges. The prize list is slightly misreported. In the class for twenty-four Cactus Dahlias we won the first prize and the gold medal of the society."

Valeriana arizonica.—The heavy rainfall of the past summer appears to have suited the comparatively new *Valeriana arizonica* well, as it is now in bloom for the second time this season. Although not one of the choicest of plants for the front of the border or for the rockery it is pleasing with its pink flowers and its neater habit than that of some of the other *Valeriana*s.

Hellanthus tomentosus.—This fine Sunflower is doing well this season, although it came into bloom later even than last year. It is not appreciated by some, it would appear, but I imagine that they had formed exaggerated ideas of the size of its flowers. Somehow a good many people appear to base their standard of size as regards the Sunflowers upon the huge blooms of some of the annual species, while they despise the smaller but more useful and ornamental flowers of the perennial species. *H. tomentosus* is very fine just now with its rich yellow flowers and its hoary foliage. Associated with some of the perennial *Asters* it is exceedingly ornamental in a border here.—S. ARNOTT, *Carsethorn, by Dumfries, N.B.*

A new Crab Apple (The Langley).—This forms a useful and beautiful ornamental tree; the fruits, though not large, are pleasantly flavoured, and being abundantly produced they are most valuable for decoration. This new Crab originated at Messrs. Veitch's Langley Nursery. It bears grandly, and the fruits remain on the trees till quite late in the year (November), thus making it useful for the shrubbery. In the spring it is very beautiful when in blossom. The bright yellow fruit, as regards their flavour, resemble Apple King of the Pippins. This variety was one of the parents, the other being the well-known ornamental Crab John Downie. The fruits make a delicious preserve, and by many would be liked in a raw state. I have referred to its free bearing; the smallest shoots are studded with fruit, and the trees grow well in poor land; indeed, the Crabs—especially the best sorts—could with advantage be more largely planted for effect.—G. WYTHES.

Irish-grown Peas.—What your correspondent C. H. Howes tells us about the growth of Peas in Ireland naturally leads to the assumption that it must be a sort of Pea Paradise. When he tells us that Gladstone Pea, seldom here exceeding 4 feet in height, grows to such height as from 5 feet 6 inches to 7 feet, it is evident that the climate must suit it admirably. I have wondered whether it may not be possible for Ireland to grow first-class late Peas and send them over here for the English market and find it to be profitable. Our market Pea season is, as a rule, a short one, rarely exceeding from five to six weeks. By September we have begun to tire a little of Kidney Beans, good as they are, and should gladly welcome good Peas then for a change. Besides Gladstone and Autocrat, Sutton's Exhibition Marrow, Sharpe's Queen, Late Queen, and Michaelmas are all good late varieties. But in Ireland, for the purpose named, it may be wisest to sow mid-season varieties, or else to sow these late varieties early in May.—A. D.

Malvastrum munroanum (syn. Sphaeralcea munroana).—This Mallow is apparently even less known than the subject of the preceding note, for no allusion to it is to be found under either name in the last fifty volumes of THE GARDEN. In deep soil its reddish pink flowers, which are smaller than those of *M. lateritia*, are scarcely produced in sufficient quantity to be effective; but in shallow, stony ground it blooms far more freely. It is a rampant grower, except in very poor soil, and quickly

covers all small neighbours with its spreading shoots. A small plant that I put in one spring measured 4 feet each way in the following October. It was introduced from Columbia in 1828, and is said by Nicholson to be hardy. It is as easily raised by cuttings as *M. lateritia*, and passes through the winters in the south-west without the slightest protection. It blooms throughout the entire summer and autumn, and its somewhat downy leaves, which are smaller and much more deeply cut than those of *M. lateritia*, are gracefully formed. Both these plants should have the sunniest spots available in order to induce them to flower freely, and rich soil should be avoided.

Bulbs remaining dormant.—Most of those who have grown Lilies at all extensively must have remarked that occasionally a bulb has remained dormant for an entire year, and the following season has made good growth. I have experienced this in the case of Lilies, but cannot remember to have noticed it with other bulbs until lately, when three instances occurred in my garden. Two years ago I procured a bulb of *Pancratium illyricum* and planted it in light soil in front of a south wall. Not a particle of growth appeared during the whole summer, and I concluded that it was dead. After it had been in the ground for a whole year I determined to see what had happened to it, and on making a search discovered it plump and apparently healthy, but with no sign of roots or top growth. I then potted it in light soil and placed the pot in a frame, covering it with 6 inches of Coconut fibre. Here the bulb remained for six months in precisely the same condition. I then placed it in gentle heat, but for two months no change was apparent. Then it commenced to make root growth, which has continued for the last ten weeks, but no sign of top growth has yet appeared. Thus it has remained without a vestige of foliage for practically two years, yet the bulb appears plump and healthy. Last October I planted some bulbs of *Ornithogalum arabicum*. This year they have shown no sign of growth above ground, and recently, on uncovering them, I found that they were hard and apparently sound, and had put forth a few roots which were from half an inch to 1 inch in length. The third case is somewhat dissimilar, the bulb or tuber being in this instance that of *Tropaeolum pentaphyllum*. This I received from Mr. Archer-Hind late in 1901 and immediately planted. In January, 1902, it commenced to show growths, and although many were badly cut by the frost, it continued to throw up more through the spring, reached a height of over 6 feet during the summer and autumn, and continued flowering until December. This year no sign of growth had shown at midsummer, but on uncovering the tuber I found it perfectly sound. Curiously enough, a tuber given by Mr. Archer-Hind at the same time to a friend resident about 15 miles from here behaved in a precisely similar manner. It made growth early in 1902, and continued in flower until nearly the end of the year, but up till August this season had remained dormant. I am not aware of its behaviour since then, but about the third week in August my tuber commenced to make growths, the longest of which is now 15 inches in length. What the reason is for the bulbs of the *Pancratium* and *Ornithogalum* having remained dormant so long and for the tuber of the *Tropaeolum* having passed through the spring and summer without showing visible signs of growth I am at a loss to conjecture.—S. W. FITZHERBERT, *Kingwear, South Devon*.

Lettuce at the Drill Hall.—The magnificent collection of Lettuces staged by Messrs. Dickson and Robinson, of the Royal Seed Warehouse, Old Mill Gate, Manchester, on the 15th ult. was certainly one of the features of the exhibition, for not only was there a considerable number of distinct varieties, but all were in the pink of condition and splendidly staged. I was informed that the specimens were not specially grown for exhibition, but were simply taken from their trial rows—sown on May 31. Though, of course, in such a large number, many bearing different names, much resembled each other, nevertheless a great many were thoroughly distinct, especially the

Cabbage varieties. The highest award—a gold medal—was unanimously recommended by the committee, and, though this may seem somewhat extravagant to those who did not see them, the exhibit was fully worthy of it, and Messrs. Dickson and Robinson are to be congratulated on making what I fully believe to be the finest exhibit of Lettuce ever seen in London. How interesting if these could have been kept back and shown at the Chiswick show! I append a complete list of the varieties staged. *Cabbage varieties (New)*: Lord Kitchener (fine), Staghorn (very distinct), Distinction (extra good), and Verdant Green. *American Gathering*, Large Yellow Stubbhorn Head, Standwell, Queen of Lettuce (good), Large Brown Stubbhorn Head, All the Year Round, Immensity (very large), Perpignan Improved, Erfurt Thickhead, Ideal, Early Ohio, Duke of Cornwall, Heartwell, Iceberg, Paragon, Giant, Golden Spotted, Favorite, Emperor William, Wonderful, Unrivalled, Neapolitan, Buttercup (very effective), Exquisite, Commodore Nutt, Matador, Supreme, Magnet, Marvel, Perpetual Cabbage, Bismarck, Sugar or Swede, Rudolph's Favourite, Continuity, Fearnought, Marvel of Cazard, Bossin's Giant, Philadelphia, Dutch Butter, Satisfaction, Golden Head, Brown Dutch, Epicure, Giant Summer, Drumhead, Australian Yellow Curled, Firatling, Great Heart, and Red Besson. *Cos varieties (New)*: Giant Market, Little Gem, and Champion White; Prince of Wales, Par Excellence, Dwarf Perfection, Hicks' Hardy White, Express, Bath Cos, Asparagus Lettuce, *Lactuca angustana*, Balloon or Mammoth, Ivory's Nonsuch, Trianon Early White, White Heart, Baldwin's Cos, and Paris Green.—E. BECKETT.

A grass for shaded situations.—*Festuca rubra* (the Red Fescue) is recommended in Bulletin 22 of the New England Association of Park Superintendents as a very good grass for shaded positions, doing well in dry, sandy, and sterile land. Of course, it will suffer and disappear if tramped over continually by great masses of people. The Government astrologist recommends the variously leaved Fescue (*Festuca heterophylla*) for use in densely shaded situations. Often, too, Kentucky blue grass can be used to good advantage if care is taken to keep the land from becoming sour and sodden. This can be done by using care in watering and by occasional applications of lime, with surface cultivation of the soil by means of an iron-toothed rake or similar instrument.

Rose Amateur Teyssier (new H.T.).—I enclose some blooms of Rose Amateur Teyssier (H.T.) which have been cut from two standards in my garden, and which I think you may like to see, as the Rose appears to be little known. One standard was planted in the autumn of 1901, the other last autumn, and both have made good growths and fine heads. The production of blooms on each standard is remarkable, and the recent rains and wind have had little effect on them.—H. J. STOBART, *The Church House, Belbroughton, Stourbridge*. [The blooms received are of lovely form, slightly scented, white, suffused with cream, especially in the centre.—ED.]

The single Hollyhock.—I notice that some of your correspondents look upon the single Hollyhocks as useless and weedy subjects, unworthy of a place as border plants. But it is unnecessary and even unnatural that every lover of flowers should be so conservative as to admire only what might be termed florist's flowers. Freedom of choice and variety are points of particular interest in beautifying gardens of any considerable extent, and hence the impartiality of Nature in providing objects of interest to uncultivated tastes. To make an extensive use of the double Hollyhock upon its Hop-pole habit of growth, studded with it may be pretty, yet formal rosette-like flowers devoid of the natural elegance of the single and semi-double ones, when seen in great variety and well selected colours, would be deplorable. Since reading your correspondents' remarks upon this subject I have carefully examined numerous plants of the single and semi-double varieties, which have been blooming in great profusion considerably over two months, and find from twelve to twenty growths upon each

plant, from 12 feet to 14 feet in length, averaging from thirty to fifty fully-expanded flowers upon each individual growth, and the full height of the plants, and this too after the severe gales and heavy rains experienced. Near these giants of the garden may be seen *Lavateras*, growing and blooming in great profusion and beauty, but in comparison like the garland Oak and the pigmy in a 10-inch pot. My experience is that single *Hollyhocks* are much less subject to disease than are the double varieties.—W. FRYE, *Lockinge*.

Notes from Baden-Baden.—Among *Solidagos*, *S. spectabilis* is very free and pretty. It does not become more than 2½ feet to 3 feet high, and the flower-bunches form regular pyramids, which are very showy and striking. *Scabiosa japonica* well deserves a place in the flower garden. It is a hardy perennial, has pretty deeply-cut foliage, and bears now a multitude of mauve-coloured flowers. *Patrinia scabiosifolia* deserves recommendation; it reaches a height of 3 feet, and has very showy, handsome, bright yellow umbels of a peculiar arrangement which permits a very long succession of blooms. *Clematis tangutica* shows quantities of its deep yellow flowers, and may perhaps be very useful for hybridising.—MAX LEICHTLIN, *Baden-Baden*.

Bulbous plants from seed.—In the leading article in *THE GARDEN* for September 19 mention is made of the ease with which the charming little *Cyrtanthus Mackenii* can be raised from seeds, a remark which applies with equal force to the other two species therein mentioned. A feature that causes these small growing *Cyrtanthi* to stand out markedly from many other bulbous plants is that they will flower in about eighteen months from seed, that is, if it is sown as soon as ripe. Of the bright flowered ones there is a good deal of difference in the depth of colouring between the flowers that open in the winter and in the summer, those of the last-named season being much brighter in tint. Early in life as these *Cyrtanthi* flower they are in this respect eclipsed by another pretty little bulb mentioned in the before-named article, namely, *Anomatheca oruenta*. Having some pans of this the seed ripened and was then scattered about on the soil of the neighbouring plants, with the result that in the following summer young flowering examples cropped up in all directions, in some instances even underneath the stage. Of *Zephyranthes carinata* (which, like the writer, I have found to flower at different seasons of the year), the finest bulbs that have ever come under my notice were sold in one of the London auction rooms some five or six years ago. They were said to have been grown in Bermuda, but probably the price realised, which was very little (though I cannot say the exact amount), did not encourage their continued culture.—H. P.

Maize as an autumn vegetable.—The Maize or Sugar Corn is not a favourite in this country, though it can be grown readily enough and gives variety. My note more concerns the value of Maize as an autumn vegetable, and I notice that the plants this season have made a splendid growth, finer than usual. Doubtless the heavy rains have suited it, though it requires warmth to mature the cobs. I recently saw a fair quantity of cobs for sale in the market and greengrocers' windows, doubtless imported produce, though I have seen quite as good growths at home, even when the plant is only grown for ornament. Given room and a rich root-run it soon makes a grand growth. A few seasons ago I had a dozen distinct varieties sent from America. Some were much earlier and dwarfer than others. They differ greatly as regards size, colour, and flavour. Some of the dwarf ones, even when sown in the open, finish well in the early autumn, but, of course, much depends upon the season. The year I grew the varieties named was hot and most favourable. The plants were in trenches, which were flooded weekly. Many are grown in the States, where the Green Cob is a favourite. They are cooked and served in a variety of ways, but the simplest way is to cook like Asparagus and serve hot. The best plan is to sow in small pots in frames and plant out, but care is necessary that the young seedlings do not get pot-bound in their early stages of growth. In a

warm soil they do well sown late in April or early in May in deep drills or shallow trenches 3 feet apart and thinned to 18 inches between the plants. Why I advise drills or trenches is because more food and moisture can be given the plants during growth. They are rapid growers, and require a rich root-run and ample moisture. The first cobs will be ready in September, and the plants will grow till cut down by frost. An open quarter and deeply-dug soil suit them well. Large growers may with advantage have more space than advised above; 4 feet is not too much, and 3 feet between the plants. They will repay a mulch of rich manure when the plants form their cobs.—G. WYTHES.

The Florists' and Gardeners' Society of Rome have recently issued a schedule of prizes to be offered at their forthcoming autumn exhibition. This exhibition will be held in the Palace of the Fine Arts, and will be devoted to *Chrysanthemums*, foliage plants for decoration of apartments, &c. The prize list is a comprehensive one, and includes five principal divisions. In the first division are forty seven classes for *Chrysanthemums*, both plants in pots and cut flowers. Provision is made for novelties, for varieties of Italian origin, for general collections, for large blooms, and others. The second division is for ornamental foliage plants, of which there are twenty-five classes. In the other divisions various autumn flowers are provided for, plans of gardens and artistic objects relating to the garden having special attention. The prizes offered consist of diplomas of honour, silver-gilt, silver, and bronze medals, and honourable mentions. The secretary is Signor C. Pasquini.

Horticultural Directory.—The editor would remind nurserymen, seedmen, and more particularly head gardeners, that additions and corrections for the 1904 edition of the "Horticultural Directory" must be received at the office, 12, Mitre Court Chambers, Fleet Street, London, not later than the 5th inst. to ensure insertion.

THE ROSE GARDEN.

EXHIBITION ROSES FOR BEGINNERS.

NURSERYMEN will soon issue their new catalogues, and their advent is doubtless being looked forward to by some of your Rose-loving readers who intend next year to blossom out as "new exhibitors." The difficulty one finds in looking through the catalogues is the number of varieties marked "S" (show), and when we come to compare the names of those we have taken a fancy to at some exhibition, the matter of selecting the best growers becomes difficult—at least I found it so when I first started Rose culture. I carefully selected all the varieties marked "S," and thought I was sure to stand a good chance at our local show. I did get a third prize (there were only two other exhibitors). The next autumn my 130 varieties were weeded down to about thirty, and the number of plants increased to six of each sort. I would certainly advise the beginner to start with not more than 200 plants, and join the National Rose Society. The subscription is only 10s. 6d. per annum, and one has only to send his subscription, name, and address to the honorary secretary, Mr. E. Mawley, Rosebank, Berkhamsted, who will be pleased to enrol and forward him the society's interesting and instructive publications, written by some of our greatest rosarians.

Of course a very great deal depends on the soil and situation of the beds as to which are the best varieties to grow. My garden here is situated on the top of a ridge, and is simply swept by the north-east wind; yet both the

Teas and the Hybrid Perpetuals do remarkably well, and as the soil in one part of the garden is a clayey loam, which the H.P.'s seem to revel in, the other part is a sandy loam, which suits the Teas admirably. I am fortunate in that respect, but all soils are not alike, and what are not suitable for the purpose required must be made, or failure is certain, and the National Rose Society's pamphlet will tell how to set about matters. It is a mistake to grow a large number of varieties, or attempt to do too much with a few. The 200 trees which I would start with are as follow:—

HYBRID PERPETUALS.

Mrs. John Laing, 10; Ulrich Brunner, 10; Frau Karl Druschki, 10; Her Majesty, 10; Mrs. Sharman Crawford, 10; Prince Arthur, 10; Captain Hayward, 5; Charles Lefebvre, 5; Robert Scott, 5; Susanne Marie Rodocanachi, 4; and A. K. Williams, 3.

HYBRID TEAS.

Bessie Brown, 10; Caroline Testout, 10; Mrs. W. J. Grant, 10; Marquise Litta, 4; Kaiserin Augusta Victoria, 5; Gladys Harkness, 5; and La France, 5.

TEAS.

Maman Cochet, 12; White Maman Cochet, 12; Mrs. Mawley, 12; Souv. de S. A. Prince, 10; Mme. Hoste, 10; Bridesmaid, 6; and Innocente Pirola, 6.

I have left out of the foregoing list such varieties as Gustave Piganeau, Horace Vernet, Marie Beaumann, and Ulster—they only succeed well when grown as maidens—and Catherine Mermet, Mme. Cusin, and Comtesse de Nadailiac from the Teas, as I find them very difficult to grow. The Teas should all be half-standards about 2 feet high. Obtain your plants from a good firm, and order early. Stipulate that they are to be worked on Briar stocks. Follow the directions given in the National Rose Society's pamphlet, "Hints on Planting Roses," as to the planting, and exhibit next July at the Temple Rose show.

Enfield.

COURTENAY PAGE

SEASONABLE WORK.

No time should now be lost in getting planted a quantity of

ROSE CUTTINGS.

Only those who have watched the development of own-root plants know how excellently they acquire themselves after the second or third year, and they quickly overtake plants of the same varieties budded on the Manetti stock. I should not advise anyone to put in cuttings of all varieties. At this season of the year it is best to confine one's efforts to the Hybrid Perpetuals and some of the Hybrid Teas, especially those of the La France race. Of course, all the Ramblers, Ayrshires, and Penzance Briars strike like Willows, and they come in very useful for various purposes. The kitchen or nursery garden is the best place to form a bed for Rose cuttings. I prefer to employ a piece of land that has been dug some few weeks and that is in fairly good condition. Rather than apply fresh manure it is better to omit altogether. Level the ground, then mark out beds about 4 feet wide. Cut down narrow trenches about 8 inches to 10 inches deep, and in the bottom put 1 inch to 2 inches of sharp sand or road grit. The cuttings should be planted as soon as a few dozen are made. Select firm well-ripened wood of the current season's growth, and, if possible, with a heel. Make the cuttings from 6 inches to 10 inches long. Do not take out the eyes as one would if Manetti or Briar cuttings were being made. If the foliage seems very persistent allow it to remain near the top of the cutting. Now set the

cuttings against the wall of earth, and, of course, the heel resting on the sand, then fill up with the soil removed. The cutting should be buried a little more than three-quarters of its length. If left out of the ground more than this the sharp frosts of winter will force them out of the ground several inches. Even as it is the cuttings will be lifted, so that it becomes necessary to watch them and push them down into the sand when frost has gone. As each row is planted it should be well watered, and the next row commenced about 8 inches or 9 inches apart. Fully 90 per cent. of these cuttings should root and be ready for transplanting in April, 1905.

CLIMBING ROSES ON PERGOLAS.

Pillars and walls should now be overhauled and any worn out wood removed. Lay in the new shoots so that they are not crowded. The air and light they receive from now till November will assist much to mature the wood, a condition that is most essential to good displays of blossom. There are this season numbers of soft growth which will be a trouble to the grower another year. If the points of such are now pinched out it will help matters considerably.

POT ROSES

for spring flowering should now be repotted. Do not give too great a shift. I believe in well overhauling the soil with a pointed stick. This work should be done carefully, as it is of the utmost importance to preserve all the roots possible. A few oyster shells broken up fine and mixed with the crocks are appreciated by the fine rootlets. The compost should consist of two parts good turf, loam, one part spent hot-bed manure, a small quantity of burnt garden refuse, say two or three shovelfuls to a barrowful of soil, and about a pint and a-half of bone-meal to each two bushels of compost, all thoroughly incorporated. A sufficient quantity of compost should be kept to top-dress any plants required to bloom earlier, and also for potting up, in November, standards, half-standards, Ramblers, and other Roses which come in so useful for conservatory decoration, and for special employment in the flower garden and terraces during the summer months. If a supply of

ROSE BUDS

is required during November and December, these can be obtained by introducing now some plants into a very gentle heat. These plants are usually obtainable at the large Rose nurseries, and should consist mainly of the thin Roses of the Isabelle Sprunt and Safrano types. If possible, every large establishment should have at least one house planted of that splendid winter Rose Liberty. Its glorious colour, so well maintained, is of inestimable value during the dull months. I am strongly in favour of planting it out in well-prepared borders, but of course the variety may be grown in 8-inch pots. Do not try to grow Roses with other plants. The Queen of flowers is deserving of a house all to itself, and will repay anyone for so doing. P.

THE FLOWER GARDEN.

CACTUS DAHLIA VESTA.

MESSRS. J. BURRELL & CO. sent out this variety in 1901. It is a charming colour, rich deep pink, with ivory white centre, which is more pronounced as the bloom becomes fully expanded. It is a free and early bloomer, and a good variety for garden decoration, most of the blooms coming well out from the foliage. As an exhibition variety it is variable, doing well on some soils but badly on others, when the blooms have a tendency to come shallow. This fault is, I think, the result of disbudding, and will not be experienced when grown naturally for garden decoration. This Dahlia



CACTUS DAHLIA VESTA. (Pink. Slightly reduced.)

has figured largely at various exhibitions this year, and its distinct attractive colouring has often had much to do with the successes of some exhibitors. P. W. TULLOCH.

FOUR UNCOMMON HERBACEOUS PLANTS.

GAURA LINDHEIMERI.—This is a pretty perennial that may be termed perfectly hardy, as it has come unharmed through over 20° of frost in Scotland. It is, however, but rarely met with in gardens. It attains a height of between 5 feet and 6 feet, and bears long, slender racemes of white flowers rather over 1 inch in diameter, the reverse of the four narrow petals being rose-pink. It was in mid-September in good flower, and its bloom-sprays have a delicate effect arranged in tall glasses. Native of Texas.

Commelina caelestis.—This plant, though it cannot be considered hardy, may, with *Salvia patens* and *S. azurea grandiflora* (Pitcheri), be left with impunity in the open through the winter in the south-west. In cold districts the tuberous roots may be lifted and stored during the cold weather.

The colour of the three-petalled flowers, which are about 1 inch across, is a clear gentian blue. Plants attain a height of between 3 feet and 4 feet, and a group makes an exceedingly pretty picture on a bright morning. Early in the afternoon the flowers close, though as the days shorten they remain open until between 2 p.m. and 3 p.m. Self-sown seedlings often bloom the first year.

Lobelia syphilitica alba.—A white variety of the dingy blue *L. syphilitica*, pure in colour, and a good contrast to the vermilion of *L. fulgens*, *L. cardinalis*, and their varieties. Perfectly hardy, and increasing rapidly in the border.

Calystegia pubescens flore-pleno (the double Chinese Bindweed).—This climber is very attractive during the summer and early autumn with its shell-pink, double flowers. It will grow to a height of from 6 feet to 7 feet, and is admirably adapted for covering tightly strained wire netting or for clambering over rocks or dwarf bushes. It is by no means such a land-grabber as the majority of Bindweeds; indeed, it is often difficult to establish in cold, damp soils. It is, however, of rather rambling habit, shoots often coming up 2 feet or more away from the site of the main rootstock. S. W. F.

TREES AND SHRUBS.

CISTUS LAURIFOLIUS AT KEW.

BEAUTIFUL as nearly all the *Cistus* are, it is really only very few of them that can be grown permanently out of doors in even the South of England. Some fifteen species or so can be obtained that will survive winters as mild as those we have experienced during the last few years, but sooner or later a spell of frost comes that, with two or three exceptions, clears the whole of them off.

Among these exceptions, fortunately, is the species figured in the accompanying illustration, *C. laurifolius*. At Kew it is the largest, most beautiful, and hardiest of the *Cistus*. A single specimen will get to

be put to a severer test in South Britain. The species was introduced from South-western Europe in 1771. W. J. BEAN.

NEW AND UNCOMMON SHRUBS.

THE "Editor's Table" is always a particularly interesting portion of THE GARDEN, and recently it was to the lover of uncommon shrubs especially so, for several of the flowering subjects mentioned therein are seldom seen. The favoured climate of Devonshire was answerable for some that in many districts of the country require the protection of a greenhouse, particularly

Mitraria coccinea, one of the few shrubby Gesnerads that we have in cultivation. It is a native of the Island of Chiloe, off the coast of Chili, and like most plants from that part of the world needs a humid atmosphere to be seen at its best, hence in Devon and Cornwall, as well as in some parts of Ireland, it does well. This *Mitraria* will strike from cuttings of the young growing

In his paper on trees and shrubs at Castlewellan, published last year in the Journal of the Royal Horticultural Society, Lord Annesley writes thus of this *Tricuspidaria*: "From Chili we have fifteen good things. One of the best is *Tricuspidaria hexapetala*, which is better known as *Crinodendron hookerianum*. It grows to about 5 feet high, the foliage dark green, the flowers a rich crimson on long peduncles. This is a beautiful plant when in flower, and we used to keep it in the house in winter being afraid of losing it; but we have had it in the open for many years now. It flowers regularly and is perfectly hardy."

Philisia buxifolia is a low, dense growing plant with flowers like a miniature *Lapageria*, to which indeed, it is closely allied. A cool peaty soil essential for both, and they are equally liable to have the young shoots eaten by slugs. About thirty years ago Messrs. Veitch raised a hybrid between the *Lapageria* and the *Philisia*, to which the name of *Philageria Veitchii* was given. After some years it was distributed, but it is still a very rare plant. For the introduction of *Philisia buxifolia* we are indebted to Mr. William Lobb, who, when travelling in South America for Messrs. Veitch between the years 1840 and 1848, was the means of introducing, beside the *Philisia*, *Lapageria rosea*, *Pieris elegans*, *Escallonia macrantha*, *Embotrium coccineum*, *Desfontainia spinosa*, *Berberis Darwini*, and many others, including a large quantity of seeds of *Araucaria imbricata*, which up to the time it was very rare in this country.

Metrosideros floribunda (the Scarlet Bottle Brush) has before now puzzled me, and probably others, for the name, though well known in gardens and nurseries, may be sometimes sought for in vain in botanical publications. In the "Kew Hand List" it is given as *Callistemon salignus*.

Buddleia variabilis merits all that has been said in its favour on page 163, for it is a delightful and promising shrub. From the specimens that have come under my observation the specific name of *variabilis* appears to be particularly appropriate, for there is a considerable amount of variation in the colour of the flowers.

Ceanothus Indigo.—This *Ceanothus* which is justly praised for its great beauty, was raised in the well-known nurseries of MM. Barbier freres at Orleans, which were formerly in the possession of M. Trason. Some fine examples of this *Ceanothus* were brought up to the Royal Horticultural Society's meeting on September 2 last year by Mr. Fielder, gardener to Mrs. Barnes at North Mymms Park, and an award of merit was at that time bestowed upon it.

Cantua dependens from the Isle of Wight, noted on the above-mentioned page, is one of those subjects in the culture of which failures are more frequent than successes. It is a native of the elevated regions of the Peruvian Andes, and unless in particularly favoured districts of England, where it will stand out of doors, the conditions most suitable to it are a well-drained border in the greenhouse composed of loam, peat, and sand, a free circulation of air, and a liberal supply of water, especially during the summer, and all the sunshine possible. In this way it may be treated as a pillar plant, or the long rambling shoots may be employed for clothing the end of a greenhouse or conservatory, under which treatment it will often flower well. The genus *Cantua*, of which this is the best species, belongs to the natural order Polemoniaceae, having for its immediate relatives the *Phloxes* and *Cobaeas*. H. P.

MAGNOLIA GLAUCA.

THIS tree is not so well known as it should be, for, though it is not so showy as some of the other



CISTUS LAURIFOLIUS AT KEW.

be 8 feet high and even more in diameter. It flowers during June, July, and August, and when we remember that the blossom only lasts a single day its total production of flowers is extraordinary. All those seen in the picture would have fallen by night and would be succeeded by as great an abundance the following day, just as they had been preceded by as large a crop the day before. The flower is white and 3 inches across. The shrub is an evergreen with narrow ovate leaves, dark green and viscid on the upper surface, and covered with a pale brown wool beneath. During hot sunshine the plant gives off a very pleasant rather spicy perfume. Seeds are produced in great quantity, and they afford the best means of increase.

The merits of this *Cistus* as a hardy evergreen shrub for soils of poor quality have not yet been fully appreciated. The plants in the illustration stood the winter of 1894-95 without injury, and it is not likely to

shoots as readily as a *Fuchsia*, if they are taken during the summer months, dibbled into pots of sandy peat, and kept in a close propagating case.

Tricuspidaria hexapetala, which is far better known in gardens as *Crinodendron hookerianum*, is a very distinct and beautiful shrub, native of the low valleys of Chili and Valdivia, where it is said to reach a height of 10 feet or more, but in this country it will flower freely when not more than 3 feet high. The leaves, which are about 3 inches long, are harsh in texture, dark green, and wrinkled at the edges. The flowers are very striking, being when expanded of a globular urn shape, and of a bright crimson colour. A notable feature is the length of time the buds take to develop, and being borne on unusually long stalks they hang like Cherries a long while before they open. It is essentially a peat-loving plant, though I have seen it doing well with a one-third mixture of loam. It is one of the many subjects that we owe to Messrs. Veitch, who first flowered it in 1880, and by whom it was distributed a year or two later. It is, however, of slow growth, and has always remained a rare shrub.

Magnolias, it is well worth growing for its sweetly-scented flowers. It makes a small tree about 20 feet high, and as much, or more, through the head. The branches are crooked and spreading, covered with tough, rather leathery oval leaves 4 inches or 5 inches in length by about 2 inches wide. The upper sides are of a dark, shining green, while the lower surfaces are covered with a thick, bluish glaucousness. When ruffled by the wind, the tree has a distinctly pleasing appearance, as the two sides of the leaves are alternately displayed. The flowers open in August, and are of a cream colour on first expanding, changing to an apricot tint later. They are not very showy, but have a scent nearly resembling that of a good *Maréchal Niel* Rose. I have enjoyed it on a calm evening 20 yards or more away from the tree, and, unlike some of the *Magnolias*, there is nothing at all unpleasant in the scent.

M. glauca is a native of North America, and is known there as the Swamp Bay, being mostly found in moist places. It delights in a deep, damp soil, a tree here thriving luxuriantly at the foot of a slope in about 4 feet of rather wet, sandy peat. It is deciduous, but sometimes plants are met with that retain the majority of their leaves throughout the winter, but this is most probably due to local causes. It can be propagated by seeds or by layering.

Bagshot.

J. CLARK.

PUBLIC GARDENS.

BATTERSEA PARK.

THE SUB-TROPICAL GARDEN.

MOST interesting of the many good features in Battersea Park is the sub-tropical garden, where plants of other climes than this flourish so luxuriantly as almost to make the visitor wonder whether it is the distant roar of London traffic that is faintly audible, or whether he is not in reality in a sea-girt garden of the sub-tropics. The change from typical park land to almost tropical plant life is rapid, the walk of a minute along a shaded path and the view before one is totally different. The transformation is complete. The panorama before one, in which tropical trees and plants of strange foliage and brilliant flowers play an important part, seems more fairy-like than real.

Turning to the right as one enters from the west end of the park, there are, it is true, banks of Laurel and other familiar bushes, but they are so cleverly bordered by bold groups of *Cannas*, brilliant in flower and attractive in foliage, the blue Gum Tree, with its peculiarly beautiful leaves, *Yuccas*, *Polygonums*, *Palms*, and *Dracænas*, that in admiring and enjoying the latter one totally forgets the former.

On the left the foreground of the lawn is broken up by beds that are full of luxurious and often richly coloured foliage and attractive flowers. In one is planted *Paulownias*, their huge leaves towering above an undergrowth of the gold, green and white-leaved *Abutilons*, which in their turn are bordered by an edging of *Funkias*. *Palms*, *Dracænas*, and Indian rubber plants are in another, while a bed of

red-flowered *Hibiscus*, variegated *Abutilons*, with a ground covering of *Alyssum* provides still more variety of flower and foliage. A peep across the lawn between the ornamental flower-beds reveals a distant view of *Musæas*, *Palms*, *Bamboos*, *Ailanthus*, *Dracænas*, and *Gunnera*, while if the morning sun has not yet dispelled the October mist some of the surrounding trees will, with little stretch of imagination, appear as *Olives*, *Eucalyptus*, *Cypresses*, &c., and the sub-tropical picture will then be complete.

Following the path which turns to the left are many well-planned beds and borders to

it were, in a strange land. Soon the scene depicted in the accompanying illustration—the climax of sub-tropical gardening in Battersea Park—is reached. It does credit to the designer and planter. At the end of this glade, that one might guess to be anywhere but in Battersea Park, are giant *Musæas*, *Palms*, the Traveller's Tree (*Ravenala*), and other tropical plants; those most largely used in furnishing the remaining parts of the glade are *Aralias*, *Philodendron*, *Hedychium*, various *Palms*, *Monstera deliciosa*, *Dracænas*, New Zealand Flax, *Clivias*, *Magnolia grandiflora*, the Birds' Nest and other Ferns. They are so admirably arranged and so well cared for as to produce a pleasing and unique garden picture.

A few more beds of succulent plants, comprised largely of bizarre, almost weird-looking *Agaves*, *Cotyledons* and *Sedums* that vary from cup to saucer shape, still proclaim the sub-tropical garden. They are, however, but the introduction to more familiar sights, for after passing beds bright with *Liliums*, *Wigandias*, *Yuccas*, *Solanums*, &c., the green expanse of park land again comes in view, and one realises that the muffled sound was but an echo from metropolitan streets, monotonous, never-ending.

A. P. H.



A SUB-TROPICAL GLADE IN BATTERSEA PARK.

ROUND ABOUT A GARDEN.

THE WEEDS' BAD TIME.

A REALLY good garden is always at its best; but an ordinary garden, one not innocent of weeds, with plants allowed to grow very much after their own desires, is usually at its best just now. Weeds do not distress one so much in autumn. The time to clear the place up approaches, and whether you propose to do this yourself or leave it to the gardener, you know that the weeds are soon going to suffer an overwhelming, if temporary, defeat. Besides, most of one's autumn flowers have a large luxuriance and a robust freedom of habit which renders them, without your assistance, awkward antagonists for the weeds. When a clump of Torch Lilies, or Red-hot Pokers—it is always a pity when a plant has two names, which both suit it, because one never knows which to use—is blazing with scarlet and gold, and flinging its long, bent blades of grey-green leaves over everything within a half yard radius, it is a poor chance that any neighbouring weed has. And one feels almost sorry for the confiding weed that has ventured to dispute the ground with a Dahlia. You may catch a glimpse of the end of one of its poor leaves here and there, struggling for a peep of daylight through the solid mass of the Dahlia's greenery; but what does it gain for all its efforts? When the first cold snap of autumn comes—it may have come before these lines are printed—down comes the Dahlia with a flop, and down comes the weed under its dead weight. And presently comes

interest the visitor. *Verbena venosa* is particularly bright, *Daturas* have a striking and uncommon effect and appear to flower well, while some intricately worked carpet beds hardly give results commensurate with the labour and skill their production entails. A little farther on the lake comes in view on the right, and then for a moment the scene changes and becomes typically English; Flags and Reeds are luxuriant on the near bank, while on the island Weeping Willows, Silver Poplars, Alders and Acers in the first flush of autumn beauty fringe the waterside.

Still proceeding, the visitor comes across large groups of *Palms*, *Eucalyptus globulus*, and other rich vegetation, and once again is, as

the gardener, who clears away the wreckage in a wheelbarrow. I have never known a gardener tenderly to stoop and disengage that poor weed from the toils of its sudden fate.

BUTTERFLIES, IVY, AND NETTLES.

These are samples of the many reasons which make one happier in an ill-kept garden in autumn than in summer. You can hardly see the weeds for the flowers; and, if you can, it does not matter now. Besides, the butterflies and bees, and flying things of all sorts, seem to like the ill-kept garden best. Trimmed Ivy never blossoms; and in the late year, when the sun shines, the blossoms of the Ivy are something to look at, with their crowds of insect guests. And before the Ivy blooms, the tangled flowers, and sunny, sheltered nooks of a wild garden are always favoured of butterflies and bees, though the dominating factor in the number of autumn butterflies that you will see in a garden is not so much its character or the quality and number of its flowers as the vicinity of Nettle-beds, for both the Peacock and the Red Admiral, as well as the Tortoiseshell butterfly, fed as caterpillars upon Nettles. If one could persuade one's neighbours to grow only Nettles in their gardens, while we cultivated butterfly-flowers in ours, we should be

"country" enough for him. The robin has done with the country, too, for a season, and prefers a handy perch in a shrubbery, opposite one of your doors if possible. Here he can see and be seen, so that when you come out and catch sight of his red waistcoat—how hard it is to remember, by the way, that a robin's breast is not red, but a tawny yellow—he can bob and curtsy to you, with a jaunty flick of his tail afterwards, suggesting confidence in your good intentions, you may exclaim, "Oh, here's a robin! Let us give it some food." And if you give the robin food, a day-long procession of other feathered guests will invite themselves to share it with him.

THE WONDER OF MIGRATION.

But you must wait for the hard times of frost and snow before any distinguished visitors will consent to become pensioners at your bird table, though just now they are accepting the hospitality of the secluded parts of your garden in, perhaps, unsuspected numbers. For, during the whole period of migration in autumn as in spring, every shrub-grown spot becomes a welcome resting-house for many weary travellers, scarcely seen at other times between the Arctic regions and the tropics. Even London has its autumn and spring visits from feathered

sleeping London, and discovering that it could get a night's lodging in the great wheel, one realises the vastness of the ordeal which the migrant small birds go through when, with the blind instinct of travel when the cold wind blows, they leave their northern homes in autumn for lands, which they have in most cases never seen, situated they know not where.

THE GOLDCREST AND HIS FRIENDS.

But you need not go to the top of the great wheel at Earl's Court to see a migrant goldcrest; nor need you wait on the East Coast on the chance of having the good luck of the naturalist who saw a cunning little goldcrest alight from its journey across the North Sea off an owl's back! There is hardly any shrubbery so poor at this season but it has its wandering goldcrests. Restless little imps they are, hardly ever still enough to let you make quite sure that they are only goldcrests, and not the rarer firecrests. And, as they go drifting from tree to tree, piping to each other in needle tones, you discover that they have company in their wanderings. Blue tits, coal tits, marsh tits, long-tailed tits, and great tits, with tree-creepers and nuthatches, make up a lively company that will give you a good hour's entertainment if you care to watch them.

And they are only one collective factor in the wealth of bird life, which is daily changing in your garden at this season. E. K. R.



DIANTHUS CÆSIUS. (From a photograph by Miss Willmott.)

able to combine horticulture with entomology to great effect.

FAMILIAR BIRDS.

It is in the wilder parts of the garden, too, that we find the birds. On the lawns, no doubt, there are plenty of blackbirds and thrushes. These increase daily in numbers now, partly by immigration from further North, and partly by their natural movement from the fields, which have been stripped at harvest, to the shelter which gardens afford. Nor need you wander to the wild garden to see the sparrow. When the harvest was ripe he ruralised a good deal; but now that all the grain has been gathered into stacks, mostly with the ears inwards, your waterpipe is

tourists which breed in the far north and winter in Africa—tourists of the sky, who, traversing the area of fogs that hang above the metropolis, have been glad to catch glimpses of the green of the parks, and have descended to rest and feed, and occasionally to gladden the eyes of some London naturalist. The most pathetic—for there is always pathos in the journey of these feathered mites over unknown lands and seas—instance of this forced halt in London was, I think, the wee goldcrest that was discovered one morning in one of the topmost cars of the great wheel at Earl's Court. When one thinks of this little bird, measuring only 3½ inches from the tip of its tiny beak to the end of its little tail, all alone in the air above a

country, it is found growing on the limestone rocks at Cheddar in Somersetshire, from where it obtains its common name, as well as in many parts of Europe in alpine pastures. W. I.

CROCUS PULCHELLUS.

ONE of the prettiest, though not the most showy, of the autumnal Crocus species is *C. pulchellus*, which opened here early in September, and which has been enjoying to the full the spell of fine weather which set in on September 13. It has since that time had every opportunity of opening its little flowers fully to the sun, which has been more with us of late than for months before. It is a very beautiful little species from the shores of the Bosphorus and adjacent woods and mountains

NOTES ON HARDY PLANTS.

DIANTHUS CÆSIUS.

MANY choice gems the genus *Dianthus* embraces, and the Cheddar Pink is undoubtedly one of the most useful and pretty rock plants that help to furnish the rock garden. It has a neat and compact habit, forming a dense cushion of glaucous foliage, from which appear in spring the solitary rose-coloured, fragrant flowers on stems varying from 4 inches to 10 inches in height. A rather variable species, there are different forms in cultivation bearing this name, some having a very dwarf habit with large flowers, while others are taller with rather smaller ones. Easy of cultivation, it is quite at home on old walls or sunny ledges in the rock garden planted in gritty or calcareous soil. It is easy to establish on walls by sowing the seeds in cracks with a little soil, when germination soon takes place and tufts are quickly formed. Native of this

BRITISH-GROWN FRUIT AND VEGETABLES.

A GREAT EXHIBITION AT CHISWICK.

THE exhibition held at Chiswick on Tuesday, Wednesday, and Thursday last by the Royal Horticultural Society produced a much finer display of fruit and vegetables than was anticipated owing to the unfavourable season. Hardy fruit was, on the whole, somewhat lacking in colour, but in size and quality the specimens shown appeared to be up to the usual standard. Grapes, as compared with the display at Shrewsbury and Edinburgh, must be classed as poor; competition was only moderately keen with one or two exceptions, and the quality was not of the highest order. The special county classes are a most interesting feature at the Royal Horticultural Society's autumn show, and this year proved no exception. Those confined to the southern and south-west counties were best contested. The famous old vineyard at Chiswick presented a very pretty sight, with the effectively arranged displays of fruit on either side of the central walk, and the roof covered with vines in bearing. The exhibits of home-preserved and home-bottled fruits were interesting, and progress in this important matter is evidently being made. Vegetables were magnificently shown, and the opinion was freely expressed that never before had a finer exhibition of vegetables been seen.

A pleasing incident which took place on the opening day was the presentation by Sir Trevor Lawrence, Bart., of the Victoria Medal of Honour to Sir Thomas Hanbury, K.C.V.O., in recognition of his splendid gift of the Wisley garden to the society. The presentation was made at luncheon (a report of which appears elsewhere), and occasion was taken publicly to thank Sir Thomas Hanbury for his generosity.

Mr. Thomas Humphreys, for many years assistant secretary to the Royal Horticultural Society, and who is leaving to take up his appointment as curator of the Birmingham Botanic Gardens, was presented by the floral and fruit committees with an illuminated address and various articles, and by the gardening Press with a roll-top desk.

A conference on vegetables was held in the afternoon, when the following papers were read: "On Cooking Vegetables," by Dr. Bonavia and Mr. James Hudson; "On Vegetables all the year round for a private family," by Mr. W. H. Divers; "On Vegetables for Exhibition," by Mr. E. Beckett; and "On Vegetables for Market," by Mr. W. Poupert. We shall give a report of these next week.

Chiswick is not an ideal place for an exhibition, and the Rev. W. Wilks, Mr. S. T. Wright, and their assistants must have worked hard and well for things to pass off as smoothly as they did.

DIVISION I.—GARDENERS AND AMATEURS ONLY.

Collection of nine dishes of dessert fruit: First, Earl of Harrington, Elvaston (gardener, Mr. J. H. Goodacre), who staged in splendid form Washington Apple, Nectarine Albert Victor, Peach Princess of Wales, Melon Thornton Hero, Apple Ribston Pippin, Peach Eagle (very fine), Pear Doyenné du Comice, with Grapes Muscat of Alexandria and Gros Maroc. These were a very fine lot. The second prize went to the Hon. Mr. Justice Swinfen Eady, Oatlands, Weybridge (gardener, Mr. James Locke), who had Smooth Cayenne Pine, Grape Muscat of Alexandria, Fig Brown Turkey, Barrington Peach, and Apple King of Pippins.

Collection of six dishes of dessert fruit: First, J. Willis Flemming, Esq., Chilworth Manor, Hants (gardener, Mr. W. Mitchell). In this class Mrs. Pince Grape was good, also Muscat of Alexandria. Peaches Sea Eagle and Walburton Admirable were very fine.

Collection of thirty dishes of hardy fruit: Major Powell Cotton, Birchington, Thanet (gardener,

Mr. J. Cornford), was first with Figs, Damsons, Mulberries, Peach Sea Eagle, Apple Ribston Pippin, Archduke and Monarch Plums, &c. Pears, too, were very fine in this lot; second, T. L. Boyd, Esq., Tonbridge, Kent, who was very strong in Apples, Pears, Filberts, &c.

Grapes.

Six varieties (three bunches of each): First, Mr. J. H. Goodacre, Elvaston Castle Gardens, with very good Muscat of Alexandria, Barbarossa, Gros Maroc, Madresfield Court, and others. There were no more competitors, and none in the class for four varieties of Grapes.

Black Hamburg (three bunches): First, Mr. W. Mitchell, Chilworth Manor Gardens, Romsey; second, Mr. Goodacre; third, Mr. G. Lane, Highfield Gardens, Englefield Green.

Mrs. Pince (three bunches): First, Mr. W. Mitchell, with excellent samples; second, Mr. James Day, Galloway House Gardens, N.B., with smaller bunches.

Alicante (three bunches): First, Mr. H. H. Brown, Castle Hill Gardens, Englefield Green, with Grapes having a splendid bloom; second, Mr. W. Brodie, Wargrave Hill Gardens, Twyford, Berks; third, Mr. W. Allan, Gunton Park Gardens, Norwich.

Madresfield Court (three bunches): First, Mr. W. Mitchell, who showed very well; a good second, Mr. R. Milner, Margam Park Gardens, Port Talbot.

Any other black Grape (three bunches): First, Mr. W. Mitchell, with Gros Maroc; second, Mr. W. Harrison, Hollingbury Place Gardens, Bishop's Stortford, with Gros Maroc; third, Mr. W. Allan, also with Gros Maroc.

Muscat of Alexandria (three bunches): First, Mr. J. H. Goodacre, Elvaston Castle Gardens with well coloured fruit; second, Mr. James Lock, Oatlands Lodge Gardens, Weybridge; third, Mr. W. Allan. There were several more competitors; this was the best contested Grape class.

Grapes (any other white): First, Mr. W. Taylor, Tewkesbury Lodge Gardens, Forest Hill, S.E., with Chasselas Napoleon (very good); second, Mr. James Lock with Mrs. Pearson; third, Mr. Robert Grindrod, Whitfield, Hereford, with Golden Queen.

DIVISION II.—NURSERYMEN AND MARKET GROWERS ONLY.

Table of hardy fruit, 32 feet by 6 feet: Messrs. George Bunyard and Co., Maidstone, were first with a collection of Apples and Pears that was just about as good as it could be. The fruits were finely coloured and well developed, and the exhibit was tastefully arranged. Peasgood's Nonsuch, Washington, Cox's Pomona, James Grieve, Gascoigne's Scarlet, Golden Spire, Bramley's Seedling, and Lane's Prince Albert were among the finest of a splendid collection. A gold medal was awarded. Messrs. Bunyard have now won the first prize in this class no less than eighteen times. Messrs. John Peed and Son, Norwood, were second in this class, and showed very good fruit also. They had not quite the fine colour of the first prize lot, however, Peasgood's Nonsuch, Lane's Prince Albert, Lord Suffield, Wealthy, Allington Pippin, Warner's King, and Gascoigne's Scarlet were of the best. Messrs. H. Cannell and Sons were third, and exhibited some remarkably good Apples, Peasgood's Nonsuch was splendid, and so, too, were Bismarck, Cellini, and Bramley's Seedling.

The Hogg Memorial medal for a table of hardy fruit (16 feet by 6 feet) was awarded to Mr. J. B. Colwill, Sidmouth, Devon. Though somewhat small the fruits were finely coloured. Lady Sudeley was a splendid dish.

Messrs. Cutbush and Son, Highgate, N., exhibited a collection of hardy fruit that included some good

dishes of Pears, notably Marguerite Marillat, Pitmaston Duchess, and Beurré Superfin.

Messrs. George Bunyard and Co., Maidstone, were given the gold medal for a collection of orchard house fruit and trees. They had well fruited trees of Apples, Pears, Crabs, and Peaches. Very fine specimens were shown in baskets, for instance, Pears Pitmaston Duchess, Verulam, Doyenné Boussoch, Winter Windsor, Marguerite Marillat (splendid), Van Mons Léon Leclerc, Beurré Boac, Uvedale's St. Germain (six fruits weighing 9lb. 8½oz.), and General Todtleben. These were all in the pink of condition, and many dishes of fine Apples were included also.

Messrs. Thomas Rivers and Son, Sawbridge-worth, had an exhibit of fruit trees in pots and orchard-grown fruit, for which they were given a gold medal. The former included Vines, Apples, Pears, and Plums, all bearing good crops. Plum Rivers' Late Orange was a picture, heavily laden with rich golden fruits. The fruits shown in baskets were of wonderfully fine colouring and perfect finish. We may single out for special mention Apples The Queen, Cox's Orange Pippin, Peasgood's Nonsuch, and Ribston Pippin, Pears Marguerite Marillat, Louise Bonne of Jersey, Lebrun, and Conference, Peach Galway, and Plum Coe's Golden Drop.

Mr. John Basham, Bassaleg, Newport, Mon., although an unsuccessful competitor in the class for a large table of hardy fruit, had a fine display of good produce, which was well arranged.

Messrs. J. Cheal and Sons, Crawley, exhibited an attractive table of hardy fruit also, in which were many good dishes.

Messrs. S. Spooner and Sons, Hounslow, Middlesex, showed hardy fruit extensively. Although of large size the Apples rather lacked colour.

Mr. George Mount, Canterbury, had some very good Apples in his collection of hardy fruit, and Messrs. Pewtress Brothers, Tillington, Hereford, exhibited a table of Apples and Pears in good variety.

Messrs. Paul and Son, the Old Nurseries, Cheshunt, showed a table of hardy fruit decorated with autumn foliage and fruits.

Messrs. Hugh Low and Co., Enfield, exhibited hardy and tender fruits. Some of the Apples and Pears were really first-rate.

A gold medal was awarded to an exhibit of Grapes and Pine-apples from His Majesty the King's gardens at Windsor (gardener, Mr. A. MacKellar). Splendid Smooth Cayenne and Queen Pine-apples were shown, and Black Hamburg Grapes from Cumberland Lodge.

The Horticultural College, Swanley, also showed hardy and other fruits, such as Grapes, Melons, Strawberries in pots, &c.

DIVISION III.—GARDENS AND AMATEURS ONLY.

For twenty-four dishes of Apples, of which sixteen were to be cooking and eight dessert, there were five competitors, but the first prize was easily won by the fine collection exhibited by Major Bythway, Warborough, Llanelly (gardener, Mr. W. Wilkins). Amongst the finest sorts shown were Peasgood's Nonsuch, Alexander, Stone's, Lane's Prince Albert, Gascoigne's Scarlet, and a magnificent dish of Ribston Pippin, the largest probably ever shown at any exhibition of this kind. The second prize was won by Mrs. Haywood, Wood-hatch Lodge, Reigate (gardener, Mr. C. J. Salter); and the third by R. H. B. Marsham, Esq., East Sutton Park, Maidstone (gardener, Mr. W. Lewis). In both these collections many varieties were the same as in the first prize group.

The first prize for eighteen dishes of Apples (twelve cooking, six dessert) was deservedly won by Mrs. Alexander, Chevering, Hunton, Maidstone

(gardener, Mr. Charles Crane), who had some fine Kentish Fillingbasket, Newton Wonder, Emperor Alexander, Tower of Glamis, and The Queen, besides others. The second prize was won by Mr. Thomas Ridgwell, Orsett Grange, Essex, for a clean, healthy-looking collection; and the third prize went to Major Powell Cotton, Quex Park, Birchington, Thanet (gardener, Mr. J. Cornford), for what looked at least an equally good collection.

Mrs. C. J. Hanbury, Belmont, East Barnet (gardener, Mr. A. Porteous) carried off first prize for twelve dishes of Apples (eight cooking, four dessert), a clean, healthy, hardy-looking collection, that were a credit to Middlesex. The second prize collection from Henry Partridge, Esq., J.P., Castle Hill, Bletchingley, Surrey (gardener, Mr. J. W. Barke), looked as if they came from a cold and bleak region; while the third prize group came from the Right Hon. Viscount Duncannon, Bessborough, Piltown, Ireland (gardener, Mr. J. G. Weston), and were it not that they were a little bruised in travelling would probably have secured a higher award.

There were ten competitors in the class for six dishes of cooking Apples, and the judges must have had a hard task to spot the winner of the two first prizes, so even and good looking were the fruits shown. Lord Biddulph, Ledbury Park (gardener, Mr. J. Dawes), took the first prize; Major Bythway (gardener, Mr. W. Wilkins) second; while the collection from Mrs. Carl Jay, Blendon Hall, Bexley (gardener, Mr. W. E. Humphreys) was commended.

For six dishes dessert Apples, Major Bythway (gardener, Mr. W. Wilkins) took first prize with Ribston, Allington, and Cox's Orange Pippins, Gascoigne's Scarlet Seedling, Egremont Russet, and Worcester Pearmain; the second prize went to R. H. B. Marsham, Esq., East Sutton Park, Maidstone (gardener, Mr. W. Lewis), for a highly-coloured collection composed of Wealthy, Gascoigne's Scarlet, Lady Sudeley, Duchesse's Favourite, Worcester Pearmain, and Cox's Orange Pippin.

Roger Leigh, Esq., Barham Court, Teston, Maidstone (gardener, Mr. G. Woodward), easily secured first prize for his eighteen dishes of dessert Pears. He had some very fine examples of Marguerite Marillat, Durondeau, Emile d'Heyst, Gansel's Bergamot, Louise Bonne of Jersey, and the yellow coloured Le Brun; indeed, all the sorts shown were excellent.

The Right Hon. the Lord Mayor, The Mote, Maidstone (gardener, Mr. W. H. Bacon), won the second prize for a good collection, in which Marguerite Marillat, Directeur Hardy, Beurre Hardy, and Durondeau were very fine; the third prize went to Major Powell Cotton.

For twelve dishes of dessert Pears there were no exhibitors, and in the class for nine dishes of Pears the first prize was given to the solitary exhibitor, F. A. Bevan, Esq., Trent Park, Barnet (gardener, Mr. H. Farr), whose fruits deserved the award.

For six dishes of dessert Pears Alfred Benson, Esq., Upper Gatton Park, Merstham (gardener, Mr. W. Mancey), won first prize with very good samples of Pitmaston Duchess, Durondeau, Marie Louise, Louise Bonne of Jersey, Doyenné du Comice, and Marie Louise d'Ucole, the second prize going to C. H. Garton, Esq., Banstead Wood, Surrey (gardener, Mr. J. Moore).

There were three exhibitors in the class for three dishes of outdoor Peaches. The first prize was won by J. B. Fortescue, Esq., Dropmore, Maidenhead (gardener, Mr. C. Page), for Sea Eagle, Dymond, and Nectarine; but no awards were given to the exhibits from Roger Leigh, Esq., and the Earl of Harrington, as the judges made known by writing on the back of the cards that the fruits were "not outside grown," rather a strong assertion, perhaps.

For one dish of outdoor-grown Peaches the Right Hon. and Rev. Lord Braybrooke, Audley End, Saffron Walden (gardener, Mr. J. Vert), secured first prize for a finely finished dish of Sea Eagle, while the second prize went to J. Willis Fleming, Esq., Chilworth Manor, near Romsey (gardener, Mr. W. Mitchell), for the same variety less highly coloured.

The Earl of Harrington, Elvaaton (gardener, Mr. J. H. Goodacre), was awarded first prize for Albert Victor Nectarine grown out of doors. Only one dish was on the table, although three were specified in the schedule.

For one dish of Nectarines grown entirely out of doors the second prize went to the Hon. Mr. Justice Swinfen Eady, Otlands Lodge, Weybridge (gardener, Mr. J. Lock), for Victoria. A dish of Humboldt from J. B. Fortescue, Esq., Maidenhead, was shown in the same class, but received no award.

For six dishes of Plums the only exhibitor was Major Powell Cotton, Quex Park (gardener, Mr. J. Cornford), for a good collection.

For one dish of dessert Plums the Right Hon. and Rev. Lord Braybrooke took first prize with Coe's Golden Drop, and Mrs. Alexander of Maidstone second with the same variety.

The first prize for one dish of cooking Plums was also won with Monarch by the Right Hon. and Rev. Lord Braybrooke, while G. J. Gribble, Esq., Harlow Grange, Biggleswade, secured the second with the same variety.

The Morello Cherry class only fetched four exhibitors; J. B. Fortescue, Esq., Dropmore (gardener, Mr. C. Page), won the first prize, and was closely followed for second by the Hon. D. P. Bouverie, Coleshill House, Highworth (gardener, Mr. S. Haines).

DIVISION IV.—SPECIAL COUNTY PRIZES. (GARDENERS AND AMATEURS.)

Open to Kent growers only.

Dessert Pears, six dishes: First, Mr. E. Coleman, North Frith Gardens, Tunbridge, with large fruits. Apples, six dishes: First, Mr. W. Stowers, Whitehall Gardens, Sittingbourne, with splendid fruits; second, Mr. E. Coleman, North Frith Gardens, Tunbridge.

Surrey, Sussex, Hants, Dorset, Somerset, Devon, and Cornwall.

Apples, six dishes: First, Mr. J. Ellicott, Halden House Gardens, Exeter, with well coloured fruits; second, Mr. H. Avery, Battle Abbey Gardens.

Dessert Pears, six dishes: First, Mr. T. Turton, Sherborne Castle Gardens, with splendid fruits; second, Mr. G. Grigg, Ashburnham Place Gardens.

Wills, Gloucester, Oxford, Bucks, Berks, Beds, Herts, and Middlesex.

Apples, six dishes: First, Mr. C. J. Ellett, Chicksands Priory Gardens, Bedford. Warner's King was a splendid dish. A good second, Mr. W. H. Davies, Friary House Gardens, Newent, Gloucester.

Pears, six dishes: First, Mr. W. H. Bannister, Cote House Gardens, Westbury, with well-coloured fruits; second, Mr. A. Carlisle, Harlow Grange Gardens, Biggleswade.

Essex, Suffolk, Norfolk, Cambridge, Hunts, and Rutland.

Apples, six dishes: First, N. R. Page, Esq., Marine Parade, Clacton-on-Sea; second, Mr. W. Harrison, Hallingbury Place Gardens, Bishop's Stortford.

Pears, six dishes: First, Mr. W. Allan, Gunton Park Gardens; second, Mr. J. Vert, Audley End. The first prize exhibit was much superior.

Lincoln, Northampton, Warwick, Leicester, Notts, Derby, Staffs, Shropshire, and Cheshire.

Apples, six dishes: First, Mr. John Lee, Kingscrott, Higher Bebbington, with very good fruit; second, Mr. J. Naylor, gardener to Henry Knott, Esq., Stamford.

Pears, six dishes: First, Mr. W. H. Divers, Belvoir Castle Gardens; second, Mr. J. Naylor.

Worcester, Hereford, Monmouth, Glamorgan, Carmarthen, and Pembroke.

Mr. J. Dawes, Ledbury Park Gardens, was first for six dishes of Apples and six dishes of Pears. The Apples were splendid, especially Warner's King, and they were from standard trees; Mr. John H. Wootton, Byford, Hereford, was second for Apples.

The other Counties of Wales.

Apples, six dishes: First, Mr. H. Forder, Ruthin Castle Gardens, Ruthin; second, Mr. R. A. Horspool, Castle Gardens, Llangollen Road, Ruabon.

Pears, six dishes: First, Mr. R. A. Horspool; second, Mr. Fox, High Mead Gardens, Llanybyther.

Six Northern Counties of England and the Isle of Man.

Apples, six dishes: First, Mr. J. McIndoe, Guisboro' Hall, Gardens; second, Mr. W. Chuck, Brodsworth Hall Gardens, Doncaster.

Pears, six dishes: First, Mr. W. Chuck; second, Mr. Ben. Ashton, Ormskirk Gardens, Lanca.

Scotland only.

Apples, six dishes: First, Mr. James Day, Galloway House, N.B., with good fruits; second, Mr. John Cairns, gardener to the Earl of Howe, Coldstream. Messrs. Day and Cairns were also first and second respectively, for six dishes of Pears.

Ireland only.

Apples, six dishes: First, Hubert F. Broad, Esq., Bridewell, Aghern, Conna, County Cork; second, Mr. J. G. Weston, gardener to Earl Duncannon, Bessborough, Piltown.

There were no entries in the Channel Islands class.

DIVISION V.—SINGLE DISHES OF FRUIT GROWN IN THE OPEN.

(GARDENERS AND AMATEURS ONLY.)

Dessert Apples.

Adams' Pearmain: First, J. F. G. Bannatyne, Esq., Exeter.

Allington Pippin: First, Mrs. Talbot, Port Talbot (gardener, Mr. R. Milner); second, G. H. Dean, Esq., Sittingbourne.

American Mother: First, Right Hon. Lord Poltimore, Exeter.

Blenheim Orange: First, T. Lloyds Davies, Esq., Addlestone (gardener, Mr. George Cable), who had excellent fruits; second, G. H. Dean, Esq., Sittingbourne.

Charles Ross: First, Mr. T. B. Colvill, Sidmouth, with fine specimens of this Apple.

Cox's Orange Pippin: First, G. H. Dean, Esq., Sittingbourne.

Egremont Russet: First, Colonel C. Harad, Gunton Park, Norwich.

James Grieve: First, J. T. Atkinson, Esq., Caversham, Reading, with fine fruit.

King of Pippins: First, Rev. T. McMurdo, Weybridge, with very fine fruit; second, A. W. G. Wright, Esq., Newent, Gloucester.

Mannington's Pearmain: First, Mr. J. Lee, Higher Bebbington.

Margil: First, Mr. G. J. Gribble, Biggleswade, Beds.

Ribston Pippin: First, Earl of Ashburnham (gardener, Mr. G. Grigg).

Washington: First, Colonel G. B. Archer-Houlton, Bishop's Stortford (gardener, Mr. W. Harrison); second, Mr. A. W. Wright, Newent, Gloucester.

Cooking Apples.

Bismarck: First, G. H. Dean, Esq., Sittingbourne, with a splendid dish.

Blenheim Orange: First, Rev. T. McMurdo, Woburn Park, Weybridge; second, G. H. Dean, Esq., Sittingbourne.

Bramley's Seedling: First, G. H. Dean, Esq. (gardener, Mr. W. Stowers), with excellent examples in so far as size is concerned; second, Mrs. C. Pearson, Brickendonbury, Hertford.

Gascoigne's Scarlet: First, G. H. Dean, Esq., Sittingbourne, whose samples were finely coloured. Golden Noble: First, A. W. G. Wright, Esq., Newent, Gloucester (gardener, Mr. W. H. Davies), with fine fruits.

Lane's Prince Albert: First, G. H. Dean, Esq., Sittingbourne, with excellent examples; Mrs. Haywood, Woodhatch Lodge, Reigate, second. This class was strongly represented.

Lord Derby: First, Hugh C. Smith, Esq., Southampton, and G. H. Dean, Esq., second.

Mère de Ménage: First, G. H. Dean, Esq., with finely coloured examples.

Newton Wonder (open only to exhibitors in the Midland and Northern Counties): First, Colonel Hon. C. Harbord, Gunton Park, with Earl of Galloway a good second.

Newton Wonder (Southern Counties only): G. H. Dean, Esq., Sittingbourne, with a fine lot.

Peasgood's Nonsuch: First, G. H. Dean, Esq., Sittingbourne (gardener, Mr. W. Stowers), with a grand set, possibly the finest examples in the exhibition.

Stirling Castle: First, Colonel Archer-Houblon, with good even fruits of first size.

Warner's King: First, Mr. J. Lee, Higher Bebington. There were many good exhibits in this class.

Any other variety: First, Mrs. Haywood, Woodhatch Lodge, Reigate, with Stone's in fine condition. This class was strongly contested, some sixteen dishes being staged.

Dessert Pears.

Beurré Superfin: First, K. D. Wingfield Digby, Esq., M.P., Sherborne, with very fine Beurré Superfin.

Comte de Lamy: First, J. T. Charlesworth, Esq. Doyenné du Comice: First, Hon. Lord Worthbourne.

Darondeau: First, K. D. W. Digby, Esq.

Emile d'Heyat: First, Colonel the Hon. C. Harbord, Gunton Park (gardener, Mr. W. Allan).

Louise Bonne de Jersey: First, G. J. Gribble, Esq.

Pitaston Duchesse: First, H. Partridge, Esq., Betchingley, Surrey.

Thompson's: First, Colonel H. C. Harbord, Gunton Park.

DIVISION VI.—MISCELLANEOUS.

Home-preserved or bottled British-grown fruits: First, The Lady Warwick Hostel, Studley, Warwickshire (warden, Miss Edith Bradley; gardener, Miss May Crooke), with a very attractively displayed exhibit of good produce; second, Messrs. T. E. Austin and Co., Kingston-on-Thames.

Bottled fruits, one dozen bottles: First, Mr. J. Babbell, Sandling, near Maidstone; second, Miss Alice M. Smith, The Bungalow, Southwick.

Eighteen bottles of bottled fruit: First, Mrs. C. P. Markham, Hasland Hall, Chesterfield (these fruits looked in perfect condition); second, Mr. E. Beckett, Aldenham House Gardens.

A silver Knightian medal was awarded to the Agent-General for British Columbia for an exhibit of Canadian preserved fruit.

DIVISION VII.—VEGETABLES.

Collection of vegetables (100 square feet): Messrs. Richard Smith and Co., Worcester, were the only exhibitors in this class, and had a fine and representative display. Greens, Cauliflowers, Onions, Leeks, Turnips, Tomatoes, &c., were all well represented. Silver-gilt Knightian medal.

Collection of vegetables (50 square feet): Messrs. J. Cheal and Sons, Crawley, were given a silver-gilt Banksian medal for a very attractive display. Messrs. George Bunyard and Co., Maidstone, and Messrs. R. Veitch and Son, Exeter, also showed in this class, and were awarded a silver Knightian medal and a silver-gilt Knightian medal respectively.

Collection of vegetables (amateurs) (50 square feet): First, Mr. E. Beckett, gardener to Lord Aldenham, with a splendid display of produce, finely arranged and of great variety. The Celery, Greens, Carrots, and Onions were particularly good, and the variously coloured Potatoes, Tomatoes, Capsicums, &c., added a touch of picturesqueness to what might easily have been unattractive. Mr. Beckett's exhibits of vegetables are always much admired, partly because they are so attractively staged. Mr. James Gibson, Danesfield, Marlow, was second with a display that contained much finely grown produce. Onions, Savoy, Parsnips, and Beans were excellent. Mr. W. Fyfe, The Gardens, Lockinge Park, was third; his Celery and Cauliflowers were very good. Mr. G. Look, gardener to B. H. Hill, Esq., J.P., Newcombes, Crediton, was fourth.

Collection of vegetables (24 square feet): First, Mr. J. Bowerman, gardener to Lord Bolton, Hackwood Park, Basingstoke, with an excellent lot. Celery, Blood Red Onion, Dwarf Green Curled Savoy, Ailsa Craig Onion, and various Tomatoes were among the best of a very good lot. Mr. A. Basile, gardener to the Rev. Thomas McDermid, Woburn Park, Weybridge, was a good second, with good produce well arranged; Mr. S. Haines, gardener to the Hon. D. P. Bouverie, Colehill House, Highworth, was third.

Potatoes, twelve varieties: First, Mr. Ben Ashton, gardener to the Earl of Lathom, Ormskirk, Lancashire, with a splendid lot of tubers; second, A. Ayling, Esq., 16, Church Hill, Newhaven; Mr. Silas Cole, Althorp Park Gardens, was third.

Potatoes, eighteen varieties: First, Mr. R. W. Green, Wisbech, Cambs, with splendid tubers; second, Mr. J. B. Colwill, Sidmouth.

MISCELLANEOUS.

Messrs. T. Rivers and Son, Sawbridgeworth, exhibited several very fine bunches of Grapes, notably Black Alicante, Gros Maroc, Diamond Jubilee, and Golden Queen.

Mr. George Kelf, South Villa Gardens, Regent's Park, showed a collection of Melons of the variety Regent's Park, which received an award of merit on September 1 last.

Mr. Metcalfe, gardener to the Marquis of Exeter, Burghley, Stamford, exhibited several fruits of some four or five varieties of Melons. Ne Plus Ultra (beautiful rich golden colour), Royal Jubilee, Blenheim Orange, Best of All, Sutton's Empress, and Sutton's Scarlet were the varieties shown. Silver Knightian medal.

Messrs. Sutton and Sons, Reading, had an admirable display of Potatoes arranged in baskets. Included was Sutton's Discovery, said to be even a heavier cropper than Northern Star. The produce of a single tuber, cut into eyes and grown under ordinary farm culture, was 38lb. Numerous other standard varieties were included in this representative exhibit, to which a silver-gilt Knightian medal was awarded.

Messrs. Dobbie and Co., Rothesay, N.B., had an extensive exhibit of vegetables. The Leeks were excellent, as also was the Celery. Dobbie's selected Parsley, Golden Globe Onion, Victoria Kale, Marrows, Gourds, Ailsa Craig Onions, Tomatoes (notably Improved Conference), Dobbie's Selected Brussels Sprouts, Large Red Shallots, &c., were all good. Messrs. Dobbie also showed a collection of Potatoes, altogether some 4,000 tubers. They were awarded a gold medal.

The Horticultural College, Swanley, Kent, showed a collection of vegetables that included Eclipse Cauliflower, Musselburgh Leek, Onion Coccanut, Bottled Rhubarb, &c. Silver Knightian medal.

Messrs. H. Cannell and Sons, Swanley, Kent, had a collection of vegetables that included Tomatoes, Onions, Potatoes, Greens, &c., of the best quality. Silver-gilt Knightian medal.

Messrs. John R. King and Sons, Coggeshall, Essex, had a display of Cabbages, Carrots, Celery, Onions, &c. Silver Banksian medal.

Messrs. Harrison and Sons, Leicester, exhibited a collection of vegetables that included excellent Tomatoes, Onions, Peas, Broad Beans John Harrison, Leek Leicester Hero, &c. Silver Banksian medal.

Mr. W. Seward, Hanwell, showed Tomato Hanwell Victory in pots bearing heavily.

Mr. J. Brown, gardener to Mrs. A. Bramwell, King's Worthy, Winchester, showed some splendid Onions. Silver Banksian medal.

Messrs. James Veitch and Sons, Chelsea, showed an admirable lot of vegetables, for which they were awarded a gold medal. Onions, Greens, Tomatoes, Potatoes, Beet, and others were exceptionally fine.

Messrs. Ambrose and Son, Cheshunt, showed Apples and also a new Grape called Melton Constant Seedling.

Open air Grapes of the variety Brandt were shown by H. M. Tod, Esq., 22, Billiter Street, E.C.; they were grown at Cheshunt.

Mr. P. W. Green, Wisbech, showed a collection of Potatoes.

Apple Norfolk Beauty was well shown by Mr. William Allan, Thorpe Market Nursery, Norwich.

Mr. George Cannon, nurseryman, Ealing, showed an excellent lot of trained and pot fruit trees.

The following had exhibits in the sundries tent: Messrs. Corry and Co., Limited, London, S.E.; Wood and Sons, Wood Green, N.; H. M. Hamilton, baskets, &c.; Junofloria, High Holborn, a preparation to preserve cut flowers; John Pinches, 3, Crown Buildings, Clerkenwell, Acme labels; Joseph Bentley, Limited, Hull, insecticides and manures; D. Dowel and Son, Hammermith, pottery; J. George, Putney; H. Pattison, Streatham, lawn horse boots; Lubrose Paint Company, Limited, Moorgate Station Chambers, imperishable paint; A. P. Bruce, Chorlton-cum-Hardy, flower display; Pulham and Son, Newman Street, W., vases and rockery; Valls and Co., Coleman Street, E.C., Beetlecute; Champion and Co., tubs for shrubs.

THE LUNCHEON.

Sir Trevor Lawrence, Bart., presided, and was supported by Sir Thomas Hanbury, K.S.V.O., and Dr. Cooke, and there were present some hundred of other well-known and representative horticulturists.

After the usual loyal toasts, Sir Trevor Lawrence presented the Victoria Medal of Honour to Sir Thomas Hanbury, and said how deeply grateful the council and Fellows of the Royal Horticultural Society were to Sir Thomas for his splendid gift of Wisley Garden.

Sir Thomas Hanbury, in reply, said he felt flattered by the very kind remarks Sir Trevor Lawrence had made. There was no particular merit in what he had done, it was simply transferring a few figures from one book to another. He had simply saved Wisley from being cut up for building purposes. Wisley is at a disadvantage in being so far away from London, but this will not, doubtless, deter Fellows from visiting it. He hoped Wisley would remain a garden for an indefinite period, and would prove a joy to all Fellows of the society.

Sir Trevor Lawrence, in proposing the toast of the judges and committees, said that was probably the last time they would meet at Chiswick. The gardens have been leased from successive Dukes of Devonshire since 1822. Then the area of the gardens was thirty-three acres; now it is only thirteen. The entrance fee was then six guineas, and the annual subscription was four guineas. Sir Trevor referred to Dr. Lindley's association with and good work for the Royal Horticultural Society. He was assistant secretary in 1822, and thirty-six years later, in 1858, became a member of the council. Collectors used to be sent out by the society, and many valuable plants were thus introduced by the Royal Horticultural Society. Among the collectors were Reeves, Don, Hartweg, Douglas, Fortune, and others. The Royal Horticultural Society used never to know how to take care of money. Sir Daniel Morris first did good work in this direction, and they had since had excellent treasurers. Sir Trevor again referred to the gift of Sir Thomas Hanbury as having solved happily the question of a new garden. They were extremely grateful to the committees and judges for their services—it would be impossible to do without them.

Mr. Bateson, F.R.S., thought this great gift of a new garden should be carefully considered, so that the best means of making use of it for the benefit of horticulture generally might be found. He said that horticulturists were not able to put into practice definite scientific principles in the way that other workers do, and he asked if it were not possible to make use of a part of Wisley Garden for the purpose of determining scientific principles.

Mr. William Crump, on behalf of the judges, and Mr. Molyneux, on behalf of the committees, replied.

Sir Trevor then thanked the exhibitors for their valuable assistance. He said also how

sorry they were to lose Mr. Humphreys; the value of his services was known to all.

The presentation to Mr. T. Humphreys of an illuminated address was then made by Mr. Marshall, Mr. R. Dean first informing the meeting that in addition to the address several other articles would be given. The wording of the address was as follows:—

"This address, together with a cabinet canteen of cutlery and silver and a Queen Anne tea and coffee service, is presented to Mr. Thomas Humphreys, secretary of the floral committee of the Royal Horticultural Society, by those whose names are appended, in warm appreciation of his services to the floral and fruit committees of the society, both at the Drill Hall, Westminster, and the gardens of the society at Chiswick. They desire heartily to congratulate Mr. Humphreys upon his appointment as curator of the Botanical Gardens, Edgbaston, Birmingham, and cordially wish him and his family good health with increasing prosperity."

H. B. MAY, *Chairman*.
R. DEAN, V.M.H., *Secretary*.

Seventy-five names were appended.

Mr. George Gordon (in the absence of Dr. Masters) then read the following address to Mr. Humphreys from the gardening Press:—

"On your retirement from the Royal Horticultural Society's historical garden at Chiswick, the undermentioned representatives of the horticultural Press desire to offer you an expression of their good wishes. They acknowledge with appreciation and thanks the courtesy and assistance you have freely afforded them at the society's exhibitions and on other occasions, and they beg you will accept the accompanying roller-top writing-desk with their autographs engraved upon a plate as a token of their wishes for the future health, welfare, and prosperity of yourself and family. They hope that the work you will do in the Edgbaston Botanic Gardens at Birmingham will succeed in further popularising the art of gardening and encourage a greater love for plant life.—E. T. Cook, H. G. Cove, C. H. Curtis, J. Harrison Dick, John Fraser, A. S. Galt, G. Gordon, M. T. Masters, F. Moore, R. H. Pearson, W. P. Thompson, H. H. Thomas, H. J. Wright, W. P. Wright."

Mr. Humphreys, in a few well-chosen words, acknowledged these tokens of goodwill.

THE GARDENERS' DINNER

In 1866 a great gathering of gardeners assembled in St. Martin's Hall, but the dinner on Tuesday evening last at the Holborn Restaurant completely eclipsed that, according to Mr. Ker of Liverpool, who was present on both occasions; it may therefore safely be said to be the most representative gathering of British gardeners ever known. Lord Duncannon presided, in the regrettable absence of Mr. Leopold de Rothschild, who was unwell, and proved an ideal chairman. Everyone expressed themselves as delighted with the evening, and the committee deserve high praise for their hard work. There were far too many speeches, one reply to each toast would have been quite enough; but if, as was suggested, the dinner should become an annual function, this error will doubtless not be repeated. There were several splendid speeches made, but the audience would not give the speakers a fair hearing. Mr. Leopold de Rothschild, in order to show his sympathy with the gathering, besides both writing and wiring regretting his absence, generously provided each guest with wine. Messrs. James Veitch and Sons, Limited, Chelsea, very kindly decorated the tables, which were much admired. This generosity was greatly appreciated.

Mr. A. Dean first read letters from Dean Hole and Mr. Rothschild regretting their inability to be present. Both were unwell.

After the usual loyal toasts, the chairman gave the toast of "The Royal Horticultural Society and all Other Horticultural Societies." The following telegram from Mr. Leopold de Rothschild was then read: "Warm greeting

from me, with every sincere regret at not being present, and every wish for a most pleasant evening." Lord Duncannon then said I must first sympathise with you in not having Mr. Leopold de Rothschild as chairman. Many have come from distant parts who would like to have seen Mr. Rothschild. However, I must ask you to be blind to my faults, to my oversight kind. The chairman referred to the centenary of the Royal Horticultural Society, that, thanks to the munificence of Baron Schröder and Sir Thomas Hanbury, would be celebrated by a new hall and a new garden. The prospects of the society are now more encouraging than ever before, thanks in a large measure to Sir Trevor Lawrence and the Rev. W. Wilks, assisted by a loyal and energetic council. The Royal Horticultural Society has done much to popularise gardening, and now greater things than ever will be expected of it. Fifty or sixty years ago gardening was a luxury of the few, now it beautifies the homes of many. Indeed, home would not be home to many were it not for the garden surrounding it. All horticultural societies are doing a great work in giving encouragement in gardening to our working population, inculcating thrift and sobriety. His lordship mentioned that the Royal Caledonian Society will hold an international exhibition in 1906, at which Colonial exhibits will be a feature. Now, one word about gardeners, they can do much to leave the world better than they found it. Generally speaking (and I say this with all respect), gardeners spring from the industrial class, and may not have had the advantages of education that are now available, yet they have by dint of hard work, skill, and perseverance overcome all difficulties, and have succeeded in raising gardening upon a higher pedestal in Britain than it occupies in any other part of the world. Gardeners must feel grateful to the committee for affording them an opportunity of shaking hands with many old friends, but those present must suffer because they had thought fit to ask an Irish landlord to preside (cries of "No, no!") Lord Duncannon said he thought Ireland had great possibilities in commercial fruit growing. In his own district (Beasborough, Piltown, County Kilkenny) Apples do well, Plums are often superabundant, and Violets are successfully grown for market. His lordship desired to record the services of his own gardener (Mr. Weston) to those in his own neighbourhood. Lady Duncannon loves and studies her garden, and is really better qualified to take the chair to-night than myself. Long may these societies exist, and continue to add to the pleasure and welfare of the community. Lord Duncannon concluded an admirable speech with the following generous invitation: "If any of you happen to be passing my way give me a call, and I shall be delighted to see you."

In replying to this toast, the Rev. W. Wilks said that the Royal Horticultural Society was now in its hundredth year, and it was time that its vicissitudes were forgotten. In 1887 its life was despaired of, but, thanks to the efforts of Sir Trevor Lawrence, Baron Schröder, Mr. H. J. Veitch, George Paul, and a few others its prospects brightened. In 1887 there were only 770 subscribing Fellows; now there are some 7,000. The income from that source is over £7,000 a year, and from accumulated funds £450 a year. Since 1887 the Royal Horticultural Society had concentrated its energies upon gardening pure and simple, and the speaker thought therein lay the secret of its progress. In addition to the £15,000 wanted for the new Hall, £5,000 would be required for the garden, and, as it was most important that the society's invested funds should not be touched (the income from them will be wanted for the upkeep of the Hall and garden), Mr. Wilks made a strong appeal for support. Are there not, he asked, sufficient ladies and gentlemen in the country who take delight in gardening to give the paltry sum of £20,000? He suggested that gardeners should give a hint to their employers.

Mr. F. W. Burbridge thought it a pity that so much was spent upon such luxuries as motoring, yachting, &c., and, although he would not say how those who had money should spend it, he thought they might spare a little for "the garden that I love." He wished the Royal Horticultural Society would extend its influence to Ireland, and thought the Royal Horticultural Society of Ireland should be affiliated with the Royal Horticultural Society of England. Mr. Burbridge said that in Ireland there were great opportunities for commercial fruit culture. Mr. Fudge, of Southampton, also replied to this toast.

Sir Trevor Lawrence, Bart., gave the toast of "Gardening and Gardeners," and in doing so referred to the great difference in gardening (especially commercial gardening) now and a few years ago. Then flowers were hardly seen in a rich man's house, now they are everywhere. Referring to the good influence of gardening Sir Trevor said that a well-kept cottage garden invariably gives evidence of a happy home. A gardener's position is one of responsibility, all details must be thoroughly and carefully carried out, and for their good work a debt of gratitude is owing to them. The art of gardening (particularly fruit culture) is understood at home as nowhere on the Continent. With reference to women gardeners, Sir Trevor was sure they would be treated in a friendly way, especially if they did not interfere too much with the Apples. Sir Trevor referred to Mr. Chamberlain's love for his garden, and caused loud laughter by saying that when votes were being counted (as perhaps they soon might be) such a good gardener as Mr. Chamberlain should not be forgotten. The speaker concluded by saying that much of the pleasure of his life was due to gardening, and he and many others owed a deep debt of gratitude to British gardeners.

Mr. Challis, in an admirable speech, replied to this toast. He likened himself to gardeners when, after the terrible weather of last April, they found themselves fruitless, hopeless, and speechless. Mr. Challis said he was in rather a difficulty, as he hardly knew whether now to refer to gardeners as masculine or feminine. We ought as gardeners to wish our sisters every success. We have much to learn from them; they appreciate, as we cannot, many delicate branches of gardening, yet, said Mr. Challis, we trust they may be speedily transplanted to the sphere of life that is

more congenial to them, and for which they are so pre-eminently suited. Mr. Challis referred to Chiswick in its best days, and spoke of the men who were giants then. He hoped that a gardening school would be established at Wisley.

Mr. McIndoe said, as one from the North, they were very glad to be able to come down to the Chiswick show and the gardeners' dinner, and hoped that the latter would become an annual institution.

Mr. Richard Dean, in an eloquent speech, proposed the toast of "The Gardening Charities." Some are bound to go under in life's struggle, he said, and for such the Gardeners' Royal Benevolent Institution was founded in 1838. As this institution falls short of its possibilities, so the measure of support given to it also falls short. Mr. Dean advocated the claims of the Royal Gardeners' Orphan Fund and the United Horticultural Benefit Society in a very able manner.

Mr. H. J. Veitch replied, and urged all those present to try and help gardeners less fortunate than themselves. Mr. H. B. May and Mr. C. Curtis also replied to this toast.

Mr. Owen Thomas gave the toast of "The Horticultural Press," and eulogised the services rendered by gardening journals in the advancement of the art, and of their ever-ready help to all movements worthy of support.

In the absence of Dr. Masters, Mr. George Gordon briefly replied.

Mr. W. Crump proposed "The Horticultural Trade," to which Mr. Arthur Sutton, Mr. George Bunyard, Mr. George Dickson, and Mr. Peter Kay replied.

Mr. A. Dean proposed the toast of "The Chairman and Mr. Leopold de Rothschild," which was given with musical honours. The meeting closed with thanks to Mr. Owen Thomas, Mr. A. Dean, and the committee for their arduous labours.

Gladiolus princeps.—This splendid Gladiolus has been for some weeks a glorious sight. Well-grown flowers are fully 6 inches in diameter, and their colour—a glowing scarlet—renders them remarkably striking in the garden. Strong spikes will reach a height of 5 feet and carry eighteen to twenty flowers. These are produced in succession, not more than two being usually expanded at the same time, so that the spike retains its decorative qualities for a month or more. This fine hybrid, the result of a cross between *G. cruentus* and *G. Chidsii*, was first offered to the public at £1 sterling per corm. As it is, however, perfectly hardy and reproduces itself freely by means of offsets, it has already fallen to less than a fifth of that price, and should in the near future become sufficiently cheap to obtain an entry into the majority of gardens, which will gain enormously by its introduction. It appears to succeed equally well in soils of very dissimilar character.—S. W. F.

Potting and planting bulbs.—A very common mistake in the potting or planting of bulbs is to delay that operation till they have suffered considerably from being kept out of the ground so long, and consequently the display of flowers is much inferior to what would otherwise have been the case. The solid bulbs, such as Hyacinths and Tulips, are less affected than many others, but when exposed for sale, as may be often seen up to Christmas or even later, failure is sure to result. Unless there are some exceptional circumstances in the case, all of what are known as Dutch bulbs should be in their permanent quarters by the end of October at least, and many of the smaller kinds a month earlier than that. The pretty little *Ixias* and *Sparaxis* soon lose a good deal of their vitality if kept too long out of the ground, and the *Freeseas*, which reach this country by the beginning of August, are often sold two or three months later, and, of course, fail to give satisfaction. Lilies, again, have to put up with a deal of rough treatment in this respect, the loose scales of which the bulbs are composed admitting a circulation of air and allowing them to dry more quickly than in the case of a solid bulb. Yet *Lilium candidum* (the earliest of all to grow) is often planted in October instead of August, and *L. Harrisii*, of which ripened bulbs from Bermuda reach here early in August packed in boxes of stone dust, suffer greatly if kept out of the ground for any length of time after being unpacked. The extent to which bulbs deteriorate during a given time depends, of course, upon the place and conditions under which they are kept, but in the case of those for sale they are for the most part stored in hot and dry warehouses, where the existing conditions are most unfavourable to them. The gardener with cool storage rooms can, of course, keep bulbs out of the ground without injury for a longer period than those on shelves in shops and warehouses.—T.

and, as it has been imported in considerable quantity in recent years, it is now far from being an expensive Crocus to purchase. It has now been in my garden for a number of years, my original corms coming from near Broussa, where it is very plentiful. During all these years it has proved a most pleasing Crocus, and one, too, which has given the minimum of trouble, all that it has required being an occasional top-dressing when some of the corms had become bare of soil. Now, however, it appears to stand somewhat in need of lifting and replanting, as the corms are becoming crowded both from the increase by offsets and also by the number of self-sown seedlings which have appeared, not only in the border but also in the gravel of the adjoining path. It seeds freely every year, and it thus soon increases with considerable rapidity.

Although a comparatively small Crocus, especially when compared with such fine-sized flowers as those of *C. speciosus*, there is something exceedingly attractive about the blooms, which have been called bluish lilac, but which one would prefer to say are pearl blue. They are almost self-coloured on the exterior, though towards the base there are a few short, deep-coloured lines.

The interior of the segments is more frequently deeply lined, but this feature varies much in the individual plants. As already said, the flowers are a kind of pearl blue, but they vary greatly in depth, some approaching to white, and pure albinos have also been found among both collected plants and seedlings. The leaves appear after the flowers, so that *C. pulchellus* is all the better of being carpeted with a low-growing plant, such as one of the Thymes, but the drawback is that such carpetings are often frequented by slugs, which have an obnoxious habit of eating through the tubes of the Crocuses. S. ARNOTT.

IPOMCEA RUBRO-CERULEA.

A NOTE on this Convolvulus in the open air appeared on page 206. It has been a beautiful sight with me against a sunny wall in the open for the last six weeks, and it seems strange that so few employ this lovely plant for the adornment of their gardens during the late summer and early autumn. The pale blue flowers, from 3 inches to 4 inches in diameter, are the admiration of all beholders, and supply a tint absolutely unique in the summer garden. The best plan is to raise the seeds in heat, placing them separately in 4½-inch pots in porous soil, and to grow the plants on until they are from 18 inches to 2 feet high, with the flower-buds formed. They should be planted in rich soil against a sunny wall, care being taken not to disturb the roots in turning them out. Thus treated they receive no check, and continue to make growth and to form additional flower-buds, readily ascending wire or string strained tightly 2 inches or so away from the wall. It is well to have them ready to put out about the end of June or commencement of July, when hot weather can generally

be reckoned on, though in this exceptional summer this has been conspicuous by its absence. Even during a cold and rainy season, however, *Ipomcea rubro-cerulea* has formed a welcome and much-appreciated feature in the garden. S. W. F.

NEW AND RARE PLANTS.

SENECIO TANGUTICUS.

A VALUABLE addition will this Chinese plant prove to the few species of *Senecio* now grown in gardens for their ornamental foliage rather than for any merit their flowers may possess. The small yellow, starry-shaped blossoms are abundantly produced in large pyramidal panicles on stems about 5 feet high. The foliage is most ornamental, the divisions of the palmately-lobed leaves are deeply cut into segments, thus producing an elegant effect. In the border



SENECIO TANGUTICUS (REDUCED).

(Flowers yellow. Shown by Messrs. J. Veitch and Sons, Limited, at the Royal Horticultural Society's meeting on September 15, and then given an award of merit.)

or in good isolated positions on the lawn this *Senecio* will prove to be most useful. There is a good plant of it growing in the rock garden at Kew. Messrs. James Veitch and Sons, Limited, Chelsea, exhibited this plant before the floral committee of the Royal Horticultural Society on September 15, when it was given an award of merit.

GARDENING OF THE WEEK.

KITCHEN GARDEN.

CAULIFLOWERS.

PLANTS that have been raised from seed sown at the end of August or early in September will now be ready for pricking out into cold frames or hand-lights to stand the winter for an early supply of heads next June. Place a layer of material to form drainage at the bottom of the frame, and fill up to within 9 inches of the glass with soil that is not too rich. Ordinary garden soil will answer provided it is not too impoverished or rich. Make it fairly firm, and insert the young plants 6 inches apart both ways if room can be spared; they should not be inserted closer than 5 inches in any case. Afford a good watering in, no more will then be required for some days. Keep the lights right off on fine days and mild nights, and replace them only to throw off excessive rains and frosts.

CELERIAC.

This delicious bulbous vegetable being tender requires lifting and storing before sharp frosts occur. The method advised for lifting and storing Turnips will answer for these, viz., lift and trim off the tops with a knife, and store in sand or dry earth until wanted for use. During the winter months, when choice vegetables in variety are scarce, Celeriac makes a welcome change, and having in view the ease with which this plant is cultivated it should find a place in all gardens.

GAS LIME.

In old gardens that have been under cultivation for many years grubs and wire-worms are often very troublesome, and as these are hard to extirpate when the ground is cropped it behoves the gardener to do something to destroy them when it is vacant. I am convinced of the efficacy of gas lime for the purpose, provided always it is used judiciously and at this period of the year. There are properties in the material harmful to plant life if mixed with the soil fresh from the works, but if applied thinly upon the surface of vacant ground and allowed to remain for a few weeks before digging it in to allow the rank gases to pass off none but good results will accrue.

Large quantities of manure will soon be required for applying to the vacant plots. In well regulated gardens there is an out of the way part of the garden set apart for the various composts required and for turning and mixing manures. Hedge clippings, weeds, and other rubbish may here be burnt, and the ashes therefrom mixed with stable or other manure, when well turned and decomposed will make excellent material for wheeling on to vacant ground that it is intended to dig or trench. Where stiff soil has to be dealt with large quantities of charred refuse will prove very beneficial both when used alone or in conjunction with manure or road scrapings.

Stoneleigh Abbey Gardens.

H. T. MARTIN.

FRUIT GARDEN.

STRAWBERRIES.

PLANTS of the different sorts selected for early forcing having filled their pots, which are generally small and full of roots, some little care will be needed in their management, particularly in the way of watering, as an excess of water may start the most prominent crowns, and the want of it seriously injure the roots by causing the soil to shrink. Later plants in larger pots are less liable to suffer in this way, but with these judicious

waterings until the time arrives for storing away are important. The best time to water is early morning, when every plant should be examined and supplied for the day without wetting the crown or foliage, particularly when diluted liquid manure is used. Let all plants be kept quite clear of weeds and runners, and give an abundance of space between the pots to let in light and warmth, which will facilitate the ripening of the roots as well as the crowns. Worms often find their way into the pots, and soon do considerable mischief by running through the rich, heavy compost and clogging the drainage. Water with lime water to dislodge them before the plants are stored away for the winter.

VINES.

Late houses that were started early and helped forward with fire-heat will now be finishing crops of ripe, well-coloured fruit, which may be expected to hang and winter better than Grapes that still require fire-heat, and the wood and foliage being well ripened. All lateral growths may be shortened back to prevent crowding, and those which emanate from the base of the buds on old Vines should be cut away. As days and nights get colder gradually reduce the temperature to a minimum of 50°, with a rise of say 10° on fine days, and ventilate freely to secure a circulation of air when external conditions are favourable, but keep the ground ventilators closed when the weather is wet. The above remarks apply to black Grapes; but Muscats, when quite ripe, will keep well under similar treatment. Houses in which Hamburgs and other thin-skinned Grapes are hanging must be kept dry and cool, not by having all the ventilators open every day, but by keeping them closed in wet weather, and by dispensing with fire-heat as much as possible. Look over the bunches at least twice a week, and remove every faulty berry before it has time to taint its neighbour. Discontinue sweeping and raking, as dust soon disfigures the fruit. Place a tarpaulin over the external borders from this time until all the Grapes are cut. If manure is used for external borders of early vineries it should not be applied until the buds are on the move, but some light covering may be placed over the roots to protect them from cold, chilling rains. Many people do not think it necessary to expose their Vines or Peaches to the weather, but we have always felt better satisfied with the results after they have had the benefit of fine autumnal rains which so thoroughly cleanse the foliage and buds and sweeten inside borders. If maiden Vines are still growing and do not show a disposition to ripen properly, this process may be greatly facilitated by maintaining a strong dry heat with air through the day, and by shutting off the fire and keeping the house cool at night. Have fruiting pot Vines pruned, top-dressed, and placed in position ready for starting.

Madresfield Court.

W. CRUMP.

FLOWER GARDEN.

CARNATIONS.

ALL layers should by this time be well rooted and fit for planting out in their permanent quarters. The early part of October is undoubtedly the best time to plant. Many of the failures one hears of in the cultivation of the Carnation in the open borders can be attributed to late planting, also the lifting of plants after frost may in some measure be attributed to the same cause. The beds or borders in which it is intended to plant should be well prepared; the soil should not be over-rich nor too poor. If it is heavy road grit and ashes from the garden fire should be used in about equal proportions. If possible let the soil be tolerably dry at the time of planting, and great care must be taken not to break the roots away from the tongue made in layering. In planting the roots should be well covered with soil. This should be well pressed round them, and the bed altogether should be made quite firm. However much we may try there will sure to be some losses through the winter, and it is well to have some plants in store for filling in the gaps in the spring. I find it a good plan to lay in under a north wall a stock sufficient for all contingencies. Plants treated

thus are far better than those potted up and wintered in cold frames. But where the potting system is carried out there is the same necessity for early potting as for early planting. The layers should be potted singly and firmly into 3-inch pots, well watered, and stood in a frame placed in an open position and with the lights left entirely off, except in bad weather.

LIFTING TENDER PLANTS.

Now we are fairly into October we can never be sure of the weather, and the early approach of frost being very probable the spade should be run round some of the tender plants with the view to their early lifting. The large-flowered Paris Daisies come in very acceptable for cutting when the frost has cleared the borders of outdoor flowers, and stand well in water. If the plants are large it is advisable to choose a dull day for the lifting. The operation should be performed carefully. Put up directly, give a good soaking of water, and stand in the shade for a few days until they have recovered from the check caused by removal. If the small-flowered variety is grown a few of these may also be lifted, for if the flowers are not useful the plants will help to brighten the conservatory until the Chrysanthemums are ready. Plants from a good strain of *Margarite Carnations* may also be potted up. Those from late sowings will now be just coming into flower and be bristling with flower-buds. Cannas, with their striking foliage, often come in very useful where the supply of large Palms and Dracenas is not extensive. Now is a good time to look through beds of seedling *Petunias* and *Verbenas* to see if one has anything special. Sometimes one or two may be considerably in advance of existing varieties, and the old plants may in this case be also potted up.

T. B. FIELD.

Ashwellthorpe Gardens, Norwich.

INDOOR GARDEN.

AT this season of the year the glass department will require generally looking over, as the summer arrangements must now give way or be modified to meet the exigencies of the season. Advantage should be taken to clear out from the stove and other houses all plants that are approaching a condition of rest, and at the same time, if an opportunity occurs, remove all the occupants of the houses for a time, and give the interiors a good cleansing with hot water and soft soap. Afterwards syringe them thoroughly with water as hot as can be used. Such plants as *Gloriosa superba* and *G. Plantii* that flowered early should have the wood ripened correspondingly early by placing them in a light, airy house where the temperature does not exceed 55° by night, at the same time withholding moisture from both root and atmosphere as rapidly as the condition of the foliage and stems of the plants will permit. If ripened too soon, however, the tubers often refuse to start readily in the spring. The plants from the latest batch of *Gloxinia* tuber should also be ripened. The process should be carried out as gradually as possible, for if too hastily done the tubers are liable to start prematurely during the winter, the result of which is shrivelling and a large loss.

CLERODENDRON THOMSONÆ.

If growing in large pots or tube plants should now be removed into a cooler house and exposed to full light and more air. Care should also be exercised as to the amount of water given at the root, as growth will now be suspended for several months. The bark of the current year's wood should be allowed to shrivel, but very slightly, or the plant will not start again in the spring. The bushy section of *Clerodendron*, as represented by *C. fallax*, should also undergo a process of ripening at this season before the plants are cut back. Should they bear seed encourage the ripening of the same, as seeds sown as soon as ripe germinate freely and seedling plants will bloom the first year.

DIPLADENIAS

are frequently termed evergreens, but the safer treatment is to ripen the wood by gradually withholding the moisture given at the root, so that the plants cast their foliage by the early part of

December, but under any circumstances avoid an excess of moisture to the roots at this time. Strong-growing climbers, such as Allamandas, Bougainvilleas, Bignonias, &c., should have the late sappy wood removed entirely. Except in the case of Allamandas do not shorten the shoots.

LAPAGERIAS.

The young wood of these frequently becomes much entangled. Where the knife has to be used remove the shoots the full length, as, if shortened back, the evil is only aggravated. As regards moisture at the root, this plant is an exception to those previously referred to, and should not at any time be allowed to become dry. Phryniun variegatum will now do with a less liberal supply of moisture and more light before being allowed to die down for the winter. Freesias and Lachenalias that have started into growth should be gradually inured to light, and as they become strong place them near the glass in a light, cool pit. The earliest lot of Primulas should now be given plenty of room in a light, airy position in a pit where a little pipe-heat can be introduced in damp, dull weather.

Wendover.

J. JAKUES.

THE FRUIT GARDEN.

APPLE BEAUTY OF KENT.

FEW varieties of Apples give better results from young dwarf trees than does the cooking variety Beauty of Kent. The accompanying illustration furnishes plenty of evidence in support of this statement. Beauty of Kent is a large and handsome Apple, a vigorous grower, and a good bearer. It forms either a large pyramid or a standard with satisfactory results. This Apple is seen at its best when given garden culture in a warm soil, and grafted upon the Paradise stock. In cold and uncongenial soils it loses quality. It is in season from November to January. Our photograph was taken in the Langley nurseries of Messrs. James Veitch and Sons, Limited.

GRAPES AT MELTON CONSTABLE.

DURING the last two or three years the Grapes from these gardens have been so prominent at shows, especially at Shrewsbury, that readers of THE GARDEN will be interested in them, especially when it is known what wonderful crops are produced annually by Mr. Shingler. Let those interested in Grape culture hear that a single Vine produces in one season six dozen bunches, not one of them less than 3lb., and many weighing as much as 6lb., and they will be curious to know how such results are obtained, and especially when such a prize as the champion vase for Grapes is carried off by these bunches, as was the case last year at Shrewsbury.

Too many persons run away with the idea that Vines which win high honours at leading shows are allowed to bear a small number of bunches. This is not so with the Vines at Melton, as I know, having seen them annually during the last five years. True, Mr. Shingler did not again carry off the coveted prize this season. It is but fair to him, however, to say that the conditions were so altered as practically to render it impossible that he should win this year, for he does not cultivate the varieties especially catered for, viz., Muscats. A note on how such wonderful results are obtained may be read with interest and, perhaps, profit.

The vineries at Melton Constable are span-roofed, 95 feet long and 20 feet wide. In the autumn of 1894 four such houses as these were erected. They are parallel to each other and run north and south, so

that all sides obtain an equal amount of sun and light. The height of the vineries admits of 14-feet rafters. Instead of planting thirty Vines on each side of every house in the orthodox manner, as many cultivators would have done, thus requiring no less than 240 Vines—a serious item in expenditure—only twenty-four were planted, six in each house for permanent bearing. Planting was done in the spring of 1895, one Vine in the centre of each side, the remaining four a few feet from each end. So successful has been the growth that the vineries are now thoroughly furnished. No. 1 house was planted with four Vines of Madresfield Court and two of Gros Maroc; No. 2 with Muscat of Alexandria entirely; No. 3 with two Gros Colmar and four Alicante. In No. 4 house there is more variety, two Vines each of Gros Maroc and Gros Colmar, one of Lady Hastings, and one of Alnwick Seedling. It will thus be seen that but seven varieties are cultivated. The borders are entirely inside, and were made on the piecemeal system.

Mr. Shingler is a firm believer in a restricted root run. He knows exactly then what his Vines receive in the matter of stimulants. Too often in planting Vines more rooting space is given than is desirable; the cultivator cannot possibly know what the roots are doing. The borders are 3 feet deep, 6 inches of this is drainage on a bed of concrete. In the preparation of the compost due attention was paid to the natural soil; as this was destitute of lime, considerable quantities of old lime rubble and burnt refuse, with some slaked lime, were mixed with turf out from a pasture, no manure of any kind was added. The border was made quite firm, so that the roots could not penetrate through the soil rapidly, in quill-like fashion. Firm soil is admittedly a precursor of fibrous roots, and this is what all successful Grape growers seek to produce. The training of the Vines was so arranged that two, and in some instances three, canes were allowed to extend the first year for providing future rods. Some of the rods were trained horizontally along the bottom wire to the right and left of the main stem. From the horizontally-trained basal rods growths at intervals of 3 feet and 4 feet, according to the varieties, were trained directly up the roof. Mr. Shingler is a strict believer in ample space for leaf development, overcrowding of the growths is strictly guarded against.

One of the secrets of success here is the splendid foliage, thick and leathery to the touch; no undue

grossness. The colour is all that could be desired; no paleness or lack of chlorophyll. While encouraging ample foliage an excess of it is not allowed. One good leaf thoroughly exposed to light and air is worth a dozen of a flimsy character with attenuated stalks, the result of overcrowding, which is all too common in an ordinary vinery nowadays. In laying the foundation for future success only a short length of leader was retained annually. Vines after twenty years' cropping should produce bunches as large at the base of the Vine as at the extremity, and this can only be done by restriction at first. If, say, 6 feet of cane is allowed to remain from the leader annually the rods will be indifferently furnished with side spurs. As might be expected in Vines of such growth as these, surface-roots are encouraged and are present in quantity. An annual mulching of cow manure in the spring does much towards inciting the multiplication of surface-roots. Dickson's Vine Manure is here highly thought of; it is dissolved overnight and applied in a liquid state next morning. Thinning the bunches is also paid great attention to. Nowhere can better examples of such large-berried varieties as Gros Maroc and Gros Colmar be seen; each berry has sufficient space to swell in and no more. This is a point in Grape exhibiting not always receiving as much attention as it deserves. Many first prizes are annually lost through this defect.

A word as to the results attained may not be uninteresting. The year after planting, viz., 1896, each Vine was allowed to carry twelve bunches. The year following, 1897, twenty-five bunches were taken from each Vine. In 1898 Alnwick Seedling was bearing forty-three well-developed bunches with full-sized berries, the colour perfect; Alicante, forty bunches, many weighing 5lb., several 7lb.; Gros Colmar, with forty bunches, many would turn the scale at 6lb. In the case of Muscat of Alexandria one Vine carried sixty bunches, many weighing 4lb. each, the berries large, and of that amber tint of colour which renders this Grape so popular. Last year, 1902, the crop results were extraordinary, and these Vines succeeded in carrying off the Shrewsbury Cup, the quality was so excellent in spite of the enormous crop. Madresfield Court carried no fewer than seventy bunches; Gros Colmar, sixty-seven; Alnwick Seedling, fifty-one; Gros Maroc, seventy-five; and Muscat of Alexandria, sixty bunches, many weighing 4lb. each.

Mr. Shingler has a strong liking for raising new varieties. Lady Hastings, to wit, originated here



APPLE BEAUTY OF KENT IN MESSRS. JAMES VEITCH'S LANGLEY NURSERY.

as a sport from Muscat Hamburg. In appearance it is much like Madresfield Court—in shape and colour of the berries as well as in formation of the bunch. The flavour of the parent is preserved in its progeny in a remarkable degree. Fertilisation is easy, the berries "set" evenly, and there is no cracking of the skin—a defect with Madresfield Court. Several seedlings are also on trial. One especially deserving notice is a cross between Gros Colmar and Lady Hastings. I fear, however, the new comer does not possess much of the latter's flavour, but it certainly colours more easily than Gros Colmar. Even Vines growing in small pots carrying small as well as large bunches possess a density of colour and bloom much more resembling Gros Maroc than Gros Colmar. No difficulty is experienced in "finishing" this Grape, whether the Vines are confined to pots or planted out in the ordinary way. Certainly it is easier of cultivation than Gros Colmar, and for that reason is valuable; it even keeps longer than that variety. This is another point in its favour. Mr. Shingler evidently thinks well of it, judging from the stock he is working up. E. MOLYNEUX.

NURSERY GARDENS.

ALPINE FLOWERS AT COMELY BANK, EDINBURGH.

FOR many years the nurseries of Messrs. Cunningham, Fraser and Co., at Comely Bank, Edinburgh, a short distance from where Thomas Carlyle lived for some years, have been among the few in Scotland where alpine flowers are considered a speciality. They are yearly visited by an increasing number of amateur growers on the search for new plants or for old ones to replace the inevitable losses. A recent visit showed no abatement of the interest taken in these flowers by the firm, and the present condition of the collection shows that much credit is due to the present manager of this department, Mr. Austin. Within the last year or two, two large rockeries have been erected for the better display of the flowers in a natural way, and these are occupied by many good plants, although the greater portion of the stock is grown in pots in frames for the convenience of purchasers.

Saxifrages are very largely cultivated, and the moist season seems to have suited these popular rock plants unusually well, as all the sections were in capital order. There are many rare ones and others not at all plentiful in British nurseries, besides the commoner species and varieties which are more frequently seen. The Saxifrages cultivated cannot all be detailed, but one may mention such as *S. Grisebachii*, *S. zuthricana variegata*, *S. Elizabethae*, *S. Salomoni*, *S. Boydii*, *S. Boydii alba*, *S. kolaniana*, and the new encrusted hybrid raised by Mr. R. Lindsay, and named *Dr. Ramsey*, with the scarce *S. Ferdinand-Coburgi*. Alpine Primulas are also numerous, and no one need desire to see finer grown plants of such species as *P. frondosa*, which is in great quantity, or of the comparatively small stock of the uncommon *P. suffrutescens*.

A plant very largely cultivated here is the beautiful little *Morisia hypogaea*. Dwarf Campanulas are also in great numbers, and on the rockery one observed some good forms of *C. carpatica* such as *Robert Parker*, and some good varieties of *C. garganica*, including the scarce lovely white form *C. garganica hirsuta alba*. Achilleas are also well represented, and one was pleased to hear of *A. ageratifolia* (*Anthemis Aizoon*) having given a double-flowered sport here. This is being propagated, and it is hoped that it will prove permanent. The double variety of *Gypsophila paniculata* is also cultivated, though the difficulties of propagation will probably always keep this plant high in price. *G. repens monstroea* is easier to increase here. Another plant which is difficult to propagate is the pretty and curious *Astragalus Tragacantha*, a fine plant of which was on one of the rockeries. Near it was the pretty

Helianthemum lunulatum, a valuable thing on account of its beauty and its lateness of blooming. Several other Sun Roses were noted, but one which is at its best in the beginning of September in a season like this is worthy of special note. Mr. Hill-Normand's double yellow Sun Rose, Jubilee, was also in bloom. It is a very pretty one, and superior to the ordinary double yellow *Helianthemums*. One was pleased to see a large quantity of the distinct *Lobelia Tupa*, though this is not considered very hardy in the Edinburgh district. There was also a good stock of the *Ramondias* and *Haberlea rhodopensis*. Hardy Geraniums were also in considerable numbers, among them being the scarce *G. sessiliflorum*, although out of flower. The allied *Erodiums* are also in some variety, *E. guttatum* being prettily in flower, though past its best. This is one of the few nurseries where one meets with the pretty *Leucjum autumnale* in bloom, and equally pure, though, of course of entirely different character were the white flowers of *Linum catharticum*, a good alpine Flax, far too little grown for late bloom.

One might occupy a good deal of space by mentioning other plants, but there are too many things which might be named to venture upon further detail. It is sufficient to state that the leading genera of alpine flowers are represented by both rare and common species suitable for the rockery. This remark is intended to include plants of a shrubby character, for which this nursery has long been noted. S. ARNOTT.

MESSRS. ROBERT P. KER AND SONS, LIVERPOOL.

ALTHOUGH Messrs. Ker's nursery does not rank among the most extensive (it covers about twelve acres of ground), it certainly is worthy of inclusion among plant-growing establishments in England which have a special interest. For many years the name of this firm has been associated with the Amaryllis, and it is not too much to say that the efforts of Mr. Ker have materially assisted the progress that has been made in this flower during the last decade. But besides the Amaryllis (of which all the horticultural world knows), Messrs. Ker grow several other plants particularly well—in fact, they make them a *specialité*; they are Crotons, Cyclamen, and in a lesser degree Palms and pot Vines, while they cultivate, of course, a collection of general nursery stock, including hardy plants and plants under glass.

We will mention first the Amaryllis, for doubtless Mr. Ker would class them as most important. Not only are these plants well grown in this Liverpool nursery, but Messrs. Ker often exhibit them well also. And that they are prepared to go to very considerable trouble and expense in upholding the fame of English-grown Amaryllis was well exemplified by the splendid exhibit sent to the Ghent Quinquennial show. The plants were universally admired, as well for the good culture evidenced as for the distinct and finely-coloured varieties included. At the time we noted the best of them, so there is no need to do so again, and, in fact, it would not be possible to do so altogether, for they are over. We must, however, mention one variety called *Exquisite*; it is undoubtedly one of the best yet raised. It is a large asymmetrical bloom of most attractive colour, crimson-lake margined with white. Primrose Queen, also a large flower and almost white, is worthy of special note. Several houses are filled with Amaryllis, all of which are growing in pots. A great many are unflowered seedlings, and as they are already vigorous plants, with eight or nine leaves each, some are certain to flower next year. We were informed that as a rule about two years and eight months elapse between the times of seed sowing and flowering. It may be of interest to give the exact composition of the soil in which the bulbs are potted, viz., three parts of loam, one part of leaf-soil, with a fair quantity of sand and some artificial manure intermixed. The plants are growing in low, wide, span-roof houses that admit a maximum of light. They remain in these warm houses during summer and are wintered

in others unheated, but from which, of course, frost is excluded. It should be mentioned also that the plants are plunged almost to the pot-rims in a bed of ashes. They are well syringed during bright weather.

Crotons are hardly a less important item than the Amaryllis. The Aigburth Nursery (as Messrs. Ker's nursery is known) is the home of several well-known Crotons; we may mention for instance Aigburth Gem, with pretty leaves of the form known as "interrupted" (each leaf consists apparently of two leaves joined together by a thread) and Aigburthensis with narrow, green marginal yellow centred foliage, both these popular ones were raised in the Aigburth Nursery. Besides these all the best of other raisers' varieties are cultivated. We saw many good plants of *Croton Reidii*, *Flamingo*, *Prince of Wales*, *Hawkei*, *anetumensis*, and other good ones.

The Cyclamen, too, were splendid, and, like the other plants mentioned, their culture is evidently perfectly understood. Thousands of plants, recently potted into flowering pots, were in the best of health, and most creditable to the cultivator. Among other plants grown under glass that should be mentioned are Palms and Cannas. The former are largely grown, and among the latter we noticed several new varieties that are as good as we have seen this year. For size of bloom and richness of colouring they were all one could wish, and demonstrated forcibly the great improvement that has been made in this flower of late years. With reference to the plants growing out of doors we will not write of them in detail further than to say that among shrubs the Hollies were most noticeable, many good varieties are cultivated, and we saw some large plants of several. Fruit trees are also grown in quantity, and the same may be said of hardy herbaceous perennials.

THE INDOOR GARDEN.

THE MOST USEFUL PALMS.

(Continued from page 172.)

PROPAGATION.

WITH the exception of the *Elm*, all the Palms described are increased only by seed, and which is ripened in this country. As some of them at least do not long retain their germinating power they are as a rule sown as soon as possible after arrival, hence nurserymen seldom offer them for sale, preferring to sow them and sell the young plants afterwards. Nevertheless, they can sometimes be obtained, for large quantities are sold in the London auction rooms. In sowing the seeds it will be found that they germinate all the more readily if soaked for twenty-four hours in water at a temperature of 80° to 90°, but not more. The pans prepared for sowing the seed should be thoroughly but not excessively drained, with suitable compost for the purpose is good, lightened by a little well-decayed leaf-mould, peat and sand. This soil must be pressed to a moderately firm, leaving sufficient space to sow the seeds, covering them with about their own depth of soil. The best place for the seeds after the time to plunge the pans in a gentle bottom heat in a stove, but though established plants of many years will thrive in a greenhouse, yet they are greatly helped by a little additional heat at their earlier stages. After sowing sufficient water should be given to keep the soil fairly moist, the saturation stage must be avoided. When young plants make their appearance a good time to pot them off singly into small pots is just as the first leaf is developed, for if done then they start away into the new soil, whereas if allowed to grow larger before potting many of them will greatly check the removal. Small pots should be chosen for the first potting, as most Palms when large are impatient of a mass of soil over the roots. A compost such as that in which the seed was sown, will, if passed through a sieve of half an inch mesh, do well for potting off the young

plants. After potting they should, if possible, be again plunged in a gentle bottom heat, as if checked during their earlier stages they take a long time to start again. A liberal use of the syringe is beneficial even among small Palms; indeed, frequent syringing will generally keep the soil almost if not quite moist enough. As the pots get full of roots the plants must of course be shifted into larger ones. The seeds of many Palms germinate very irregularly, that is to say, a few only will make their appearance at first, and from time to time some more will push through the soil. When this happens the early ones should be carefully lifted with a pointed stick without disturbing the others, and then potted into small pots, leaving the pan until another crop appears above ground.

CULTURE.

Palms as a rule succeed best in a fairly shaded structure, and atmospheric moisture is also beneficial, hence they may with advantage be syringed two or three times a day. This also tends to keep them free from red spider, which, if the structure is kept too hot and dry, is in the case of some sorts apt to cause the foliage to turn yellow. The amount of water required will largely depend upon the condition of the roots, as in the case of well-rooted and drained plants it is scarcely possible during the summer to give them too much, whereas if they have been newly potted the watering must be carefully done, otherwise the fresh soil into which the roots have not yet penetrated will turn sour, and the plant is consequently liable to fall into ill-health.

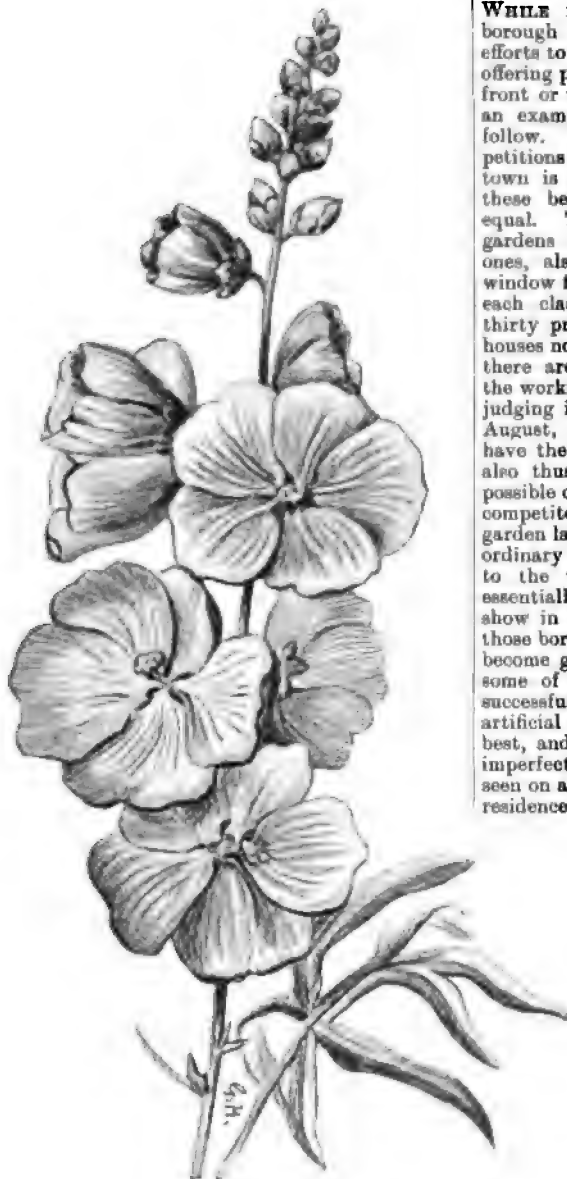
Palms may be potted at any time from March to August, but the best months for the purpose are April and May. For most Palms a loamy soil is more or less necessary; a suitable compost for all free-growing Palms is good turfy loam two-thirds or three-quarters, according to its consistency, and the remainder made up of leaf-mould, well-decayed manure, and sand. Repotting should not be done unless necessary, for Palms are often irreparably injured by being put in pots too large for them. Many of this class of plants form stout deep-descending roots, which coil around the bottom and lift the ball of soil out of its place. For such as these an ordinary shaped pot is not deep enough unless its diameter is far too great, hence many cultivators that are conveniently situated as to a pottery have pots made considerably deeper than usual for some of the Palms. When the roots are tightly coiled round the bottom of the ball the crocks that were originally put in for drainage should not be removed, as it is impossible to do so without bruising the roots, which will soon injure the plant. The soil should be pressed down moderately firm, particular care being taken not to leave any vacant spaces around the old ball of earth. Palms of all kinds are greatly benefited by the foliage being kept quite clean, and if necessary they must be thoroughly sponged. If scale makes its appearance it should be borne in mind that a stitch in time saves nine, and if carefully sponged with soft soap dissolved in warm water these pests may soon be eradicated while they are still few in number, but if allowed to increase they are not so readily destroyed. Palms are benefited by an occasional dose of liquid manure or one of the many soluble manures that are now on the market.

As seedling Palms make slow progress during their earlier stages, most people buy them from nurseries when they have attained a fair size. In purchasing plants in this way remember that where Palms are grown in quantity for sale they are kept much warmer than is absolutely necessary for them, in order that they may attain a saleable size more quickly than they otherwise would. Such being the case, when Palms are obtained from nurseries the better way will be gradually to harden them off before they are treated as plants that have not had such a tender upbringing.

PALMS IN THE DWELLING-HOUSE.

Enquiries are frequent as to the treatment of Palms in the dwelling-house. A good sponging with milk-warm water about once in ten days or a fortnight on the under sides as well as on the upper surfaces of the leaves is very beneficial, except in

very cold weather. Then in summer the well-rooted ones should be liberally watered, but on no account must the water be allowed to stand in the ornamental pots, vases, or saucers in which they may be placed. The plants should never be so placed that the sun after 8 a.m. shines directly on them. In winter remember that the window is



SIDALCEA CANDIDA ROSY GEM.

(Given an award of merit by the Royal Horticultural Society, September 15. From Messrs. T. S. Ware, Limited, Feltham.)

the coolest part of the room, hence on frosty nights the plants should be removed to the middle of the room away from all direct exposure. H. P.

MISCELLANEOUS.

SIDALCEA CANDIDA ROSY GEM.

MESSRS. T. S. WARE, LIMITED, Feltham, showed this new addition to a somewhat neglected genus on the 15th ult. at the Drill Hall meeting of the Royal Horticultural Society, when it obtained an award of merit. It is highly probable that this variety is of hybrid origin. The flowers are of a deep rose colour and very

attractive. They are as large as a florin, and profusely borne on stems 3½ feet high. It is without doubt an excellent autumn-flowering plant.

TOWN FRONT GARDENS AND HOUSE DECORATIONS.

WHILE it may be unfair to assume that the borough of Kingston-on-Thames is alone in its efforts to promote the beautifying of the town by offering prizes for front flower gardens and house front or window floral decoration, yet does it set an example which towns universally might well follow. Recently the fifth of a series of competitions was held, and now for their purpose the town is divided into north and south sections, these being in area and in population about equal. There are in each section classes for gardens over half a rod in area and for smaller ones, also for the handsomest house front or window floral decoration. There are five prizes in each class, the highest amount being 20s., or thirty prizes in all. The entries are limited to houses not rated over £20, and of that character there are literally thousands in the borough, as the working class element largely dominates. The judging is done as a rule during the month of August, not only thus enabling competitors to have their gardens well furnished, but they are also thus compelled to keep them in the best possible condition well through the summer. The competitors include persons of diverse vocations—garden labourers, small tradesmen, mechanics, and ordinary labourers. There seems to be no limit to the vocations, which includes men having essentially garden tastes, and the competitions show in a forcible way that true gardeners are those born to gardening rather than those who may become gardeners accidentally. Efforts to depict some of these small gardens have hardly been successful because of their severe limitations and artificial surroundings. House fronts come out best, and the photograph shows, though perhaps imperfectly, one of the prettiest town fronts to be seen on a labourer's cottage anywhere. It is the residence and work of an employé of the corporation named Norris. This man, who is, we believe, a carter, has secured the first prize in the house front class on his side of the town each year, but his arrangement has never been prettier than it is this season. The cottage is one of a row looking north-east, and situate in the Cambridge Road, a thoroughfare along which passes a heavy traffic. The face of the cottage is neatly draped with Ampelopsis, thus forming an admirable background and framing for the well-filled window boxes on the sills above and below, and also for the many plants in pots and baskets that are either suspended from the house or stand securely fixed on brackets. The doorway, too, is charmingly decorated in this way, and the whole forms a picture such as arrests the attention immediately of all who pass by, and is a feature of which any town might well be proud. Fuchsias, Ivy-leaf Pelargoniums, Lobelias, Campanulas, and many other plants all help to produce a singularly charming effect. There are in the town very many other floral effects, and all beautiful of their kind, while the gardens, large and small, contain in most cases very charming features, worthy of all praise and encouragement. A. D.

FLOWERS IN GREENWICH PARK.

ALL those who go to see the flower-beds in Greenwich Park cannot but congratulate Mr. W. J. Marlow, who has succeeded Mr. Webster in the post of superintendent. Among the more notable changes which have come about under his rule are that the sward in the enclosure and thereabouts is shorn close instead of having paths cut through, with the result of a beautiful emerald

setting to the flower-beds and license to the visitor to stroll here and there at will. All the plants are labelled with both scientific and common names. Among the more striking plants which go to make up the floral display around the lodge are fine specimens of Hydrangeas, Cannas, Abutilons, and Celosias. Set by themselves in the sward are *Phoenix dactylifera*, the Coral plant, *Latania borbonica*, *Araucaria excelsa* (the Norfolk Island Pine), and *Dicksonia antarctica*, all doing very well indeed. In the lake the Water Lilies are in bloom, and a gallant show is to be expected here next year, when some twenty varieties of Lilies in various shades of red are expected to come into flower. In the beds in the lake enclosure flowers of old and new fashion flourish side by side. *Convolvulus minor* is there in great masses of blue, set off by the dark red of the feathered coxcombs, masses of *Phlox*, *Marigolds*, *Mignonette*, &c. Something that attracts a great deal of attention is a bed of curious Cacti, although at present they are not in bloom. To walk along the paths is to feast the eyes upon a floral panorama, and it is good to have it on the authority of Mr. Marlow that there is absolutely no trouble with the public in the matter of the regulations which forbid the plucking of the flowers—even children are content to gaze, and leave the blossoms that please them to charm others.

Another portion of the park where the flower lover may find much to please is close to the Ranger's Lodge, where a great Cedar and a Copper Beech keep guard over the beds. In the nurseries bounding that portion of the park known as the Wilderness preparations are even now being made for the spring, and Primroses and vernal plants are being got ready for transplanting in the park. Mr. Marlow and the forty or so men under him have to use their time economically and well that the park may always present such a picture of perfection as it does at present.—*Kentish Mercury*.

NOTABLE GARDENS.

RECENTLY I was enabled to take four days' holiday, and resolved to see all I could of gardens in the time, as in such a way I find the best enjoyment. In that brief period I saw six gardens. My first call was at

SHERBORNE CASTLE, DORSET,

where I had, as usual, a hearty welcome from the gardener, Mr. T. Turton. Like so many other gardens these have suffered severely from the ungenial season, and there is little of outside fruit. Within the houses there is, or has been, plenty. Vegetables are capital here, and I saw the finest bed of spring-sown Onions I have been privileged to see anywhere this season. The varieties were *Maincrop* and *Veitch's Globe*. On an outside wall with a south aspect *Solanum jasminoides* was blooming luxuriantly. On a raised border fronting a plant house is a glorious mass of *Portulaca*. The soil is full of seed, and, no matter how dug, there is a glorious mass on it every summer. A beautiful tall annual much liked here for vases is *Sutton's Empress*, double carmine annual *Larkspur*. It grows fully 3 feet in height.

CHEDINGTON COURT.

My next call was at this beautifully situated residence of a great garden lover, Sir Henry Peto, Bart. It is some four miles from Crewkerne, faces west on a lofty elevation, and looks out over a vast extent of beautiful pastoral country. The gardens are not large, but handsomely timbered, and there are some fine specimens there. Specially fine was a perfect *Thujopsis borealis* 30 feet high and 26 feet through, a splendid object. As a background to one lawn is a row of *Thuja Lobbi*, of great height, and forming a dense face 100 feet long. What a remarkably fine background and break these *Thuyas* make. Just fronting them stand out several Irish Yews of the most perfect proportions, each of considerable height. The whole with its base of low shrubs makes a most

effective piece of planting. A good deal of the lower grounds, especially under a magnificent grove of Horse Chestnuts, is planted with bulbs, and wild gardening is being largely introduced. It is just the place of an enthusiastic amateur gardener as is Sir Henry Peto.

MELBURY.

The second day of my outing was largely occupied with a drive of some seven miles to Melbury, with my old friend Mr. J. Crook for company. Melbury is, indeed, a very fine place. The park is a most extensive one, and is grandly wooded. Some of the trees in it are of huge size and noble in form. The deer and fine cattle in it help to make it a truly delightful place. The mansion is of great dimensions, and climbers are used on it with good effect. Within the enclosed pleasure grounds is planted a remarkable collection of trees and shrubs, the place forming in that respect a notable arboretum. The green and golden forms of *Taxus Dovastoni* are especially good, and conifers generally thrive luxuriantly. There is a fine lake fronting the mansion, and on that side is a noble occidental or cut-leaved Plane such as is rarely seen. In a bed near to a mass of *Verbena Miss Willmott* was a rich scarlet variety named after the noble owner, Lord Ilchester, that merits wide cultivation.

FORDE ABBEY.

It was a long drive of twelve miles later in the day from Chedington Court to Forde Abbey, near Chard. This charming old place is most interesting, and standing on the upper part of the sloping lawn, near which is one of the finest *Pinus insignis* in the country, and from there looking down on the whole front of the ancient building charmingly clothed with climbers, it is not possible to withhold a warm tribute of admiration from the taste which characterised the architects of the remote days of its erection. Just now I found most interest in the kitchen garden, where on cool borders Mr. Crook has a huge batch of *Polyanthuses* such as will make a beautiful show next spring. He, too, has very little outside fruit, but has plenty of Grapes, Peaches, &c., within houses. His splendid rows of *Runner Beans*, of a first-class stock, were fruiting marvellously, and there was, forming a tall, dense hedge on either side of a long walk, *Canary Creeper* 8 feet in height and a remarkable show. How very beautiful were *Sweet Peas* *Salopian* and *Lady Grisel Hamilton* blending with this creeper.

CRICKET ST. THOMAS,

a few miles from Forde Abbey, to which I paid a short visit on the third day, is a singularly charming place, and is situated on the margin of a deep valley or gully, through which flows a broad stream—the *Axe*—that is here and there broken up into a series of small lakes. The grounds are admirably laid out and effectively planted. Many years since a former gardener, Mr. S. Lyons' predecessor, constructed an extensive rockery, which is now getting well covered with various suitable plants, although in the formation spaces for planting were rather cramped. There are extensive kitchen gardens and many fine plant and fruit houses. In one there are numerous Peach and Nectarine trees grown as cordons, planted 5 feet apart. These have single straight stems, the branches on either side radiating off and furnishing every inch of the roof. Not only in that way is a house soon furnished, but a dozen varieties can be grown where but two ordinarily are. This charming place is now the residence of L. Fry, Esq.

HACKWOOD PARK.

On my way home on the fourth day of my outing I called at Basingstoke, and walked out to Hackwood Park, Lord Bolton's fine Hampshire residence, to see Mr. Bowerman's vegetables. The walled-in garden of some six acres is one of the best in the kingdom, and its noble, broad grass walks and flower borders add to its unwonted charm. In spite of the general paucity of fruit on the walls, on which there is a grand lot of trained trees, every care is bestowed on them in the hope that the present year's scarcity may be followed by others of plenty. The new *Runner Bean* growing here, and well named *Hackwood Success*, is, indeed,

a grand stock, carrying a wonderful crop of fine long pods. Winter-raised Onions are always very fine, and all vegetables are of the best. The ground is deeply trenched each year, although the chief manure is leaf-mould. Potatoes are splendid crops, especially *Up-to-date* and *Sir J. Llewelyn*, with not a vestige of disease visible in the tubers. The Spruce woods are a remarkable feature, and contain really superb trees. A. D.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

DISEASE-RESISTING POTATOES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In the notice of exhibits at the Drill Hall on the 15th ult., which appeared in your issue of the 19th, you state that *Recompense* Potato is a hybrid between *Beauty of Hebron* and *Champion of Scotland*, both good disease-resisting varieties. The great importance of really disease-resisting varieties of Potatoes is becoming yearly more marked, hence my reason for troubling you. I am convinced that we ought to cull as much good from such serious seasons as the present as possible. One man near me has ploughed in eight acres of diseased Potatoes, and I hear many others have suffered as cruelly. But surely there must be really valuable sorts that come through such a season as this sound and free from disease; and it is to be hoped we shall not for many years have such an opportunity of practically proving the best of all disease-resisting sorts.

If such of your readers as grow Potatoes would write you their experience of the disease-resisting qualities of the different varieties they grow, with the nature of soil grown upon, &c., and any other particulars, it would be of the utmost value to Potato growers in general. And if, when the correspondence ended, *THE GARDEN* would publish the results in a tabulated form, such would prove an inestimable boon to growers of the tuber. I notice on page 206 a letter from "W. S." of Wills. Similar letters from all parts of Great Britain and Ireland would be invaluable.

Messrs. James Carter and Sons of Holborn secured the contract to send some hundreds of thousands of tons of *Champion of Scotland* to Ireland, after the last serious Potato famine there about 1868, as the best disease-resisting Potato of the day. *Beauty of Hebron* is always considered the best disease-resister of the American sorts. This is the second year I have grown my new variety *Recompense*, and it has never yet shown the slightest sign of disease, but every tuber of it so far has been perfectly sound and the picture of health, although some greatly-lauded new varieties growing next to it were much diseased. I have this year grown the following varieties quite free from disease: *Evergood* (Finlay), *Northern Star* (Finlay), *Edward VII.* (Butler), *Schoolmaster*, *Early Puritan*, *Snowdrop*, *Sharp's Victor*, *Rivers' Royal Ashleaf*, *Up-to-date* (Finlay), *Empress Queen* (Finlay), and *Recompense*. These varieties were all grown upon a heavy, tenacious clay, and were often for days in a complete puddle of water. I do not know if it is right to include the last named (*Recompense*), as it will not be offered for sale until after next season.

East Horndon, Essex.

G. R. KING.

[We hope that others interested in Potato culture will be so good as to send their experiences concerning the best disease-resisting varieties.—Ed.]

BOUVARDIAS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was much interested in the notes of A. Hemsley, in *THE GARDEN*, page 197, respecting *Bouvardia* King of Scarlets, which certainly is, I consider, the finest of all *Bouvardias*. I quite agree with him that they are very useful for winter flowering. He appears to advocate pot culture. I find the following method most satisfactory: In

the first place, cuttings are best from the root; insert five or six round the edge of a 5-inch pot, and place in a warm propagating case, temperature 65° by night and 70° to 85° by day, with a close moist atmosphere; these will be found to root readily. When rooted pinch out the points to produce bushy plants and remove to a cooler house, with a temperature of 55° by night and 65° to 70° by day, keeping them well syringed. When the plants have started to break pot singly into 3-inch pots, shade from bright sunshine, and syringe twice daily.

When the pots become full of roots the plants may be removed to a cool frame, admitting air at all times when favourable, and about the end of June or the first week in July plant them out in a frame, keeping the lights on for a few days, and then remove them entirely for the rest of the summer. They should, however, be put on to keep off very heavy rains. The soil for planting should be rich, consisting of two parts good loam, one part leaf-mould, and one part rotten manure. About the first week in September is a good time to place the plants in their flowering pots, but before doing this they should be cut round with a spade a week before lifting; they then go into much smaller pots. After potting place in a cold pit on ashes, keep well shaded, and syringe once or twice a day. After a few days the shade may be left off and then admit air by degrees. If flowers are wanted early place the plants in a warm house, but if wanted in winter keep cool for a few weeks and then move to a warm place. Treated in the above way I have successfully grown *Bouvardias* much finer than keeping altogether to pot culture. The best varieties I consider are King of Scarlets, Humboldtii, Jasminoides, Dazzler, President Garfield, President Cleveland, Purity, and a very pretty little one is *angustifolia*.

J. S. HIGGINS.

The Gardens, Corwen, Rûg, North Wales.

THE KITCHEN GARDEN.

RUNNER BEANS.

YOUR correspondent Mr. E. Beckett expresses surprise that the old short podded varieties of Scarlet Runners should still be grown by market gardeners. I go even farther and express some surprise—because I know the market grower pretty well—that he has not ere now got away from his old plan of growing these Beans as pinched dwarfs, and adopted the garden plan of growing them on tall rods. In the course of some visits to good gardens recently I have seen splendid rows of Beans so grown, and as compared with the produce of the market or field rows on the dwarf method the crops have been almost astounding. Did our market men but cast off the old short podded varieties and grow those new ones, of which Hackwood Success is so fine an example, they could not do justice to them. Still further I feel assured that if the very finest of long podded varieties be thus grown, even for seed, they would in time lose their greatly improved character, and gradually revert to the short podded type; grown literally on the ground, with the strong climbing bine subdued by pinching, the quality of the stock must inevitably deteriorate.

When the other day at Hackwood Park, Basingstoke, I saw three long 10 feet high rows of Mr. Bowerman's superb selection Hackwood Success. As grown there the stock is, indeed, a splendid one; all the pods of great length, very straight, fleshy, green, and tender for cooking, even when from 10 inches to 12 inches long, but apart from the length of pods the quantity was remarkable. How many bushels of edible pods might be gathered in an ordinary season it would be difficult to say, but it would be a surprising number. The pods, too, being so densely hung would be easily and cheaply gathered, and the fine, young, clean straight sample should readily obtain fully 1s. per bushel more than would the rather poor bent and too often old sample got from field rows.

But at Forde Abbey, Chard, Somerset, I specially noted a row admirably staked of Mr. J. Crook's fine selected long podded Scarlet Runner, just 60 feet long and 9 feet in height. It was as perfectly furnished a row of Runner Beans as I have ever seen. On each side from top to bottom the Beans hung in great profusion; indeed, the crop was singularly abundant. Calculating that both sides the row gave a superficial area of 120 square yards, and reckoning that each yard would during the season produce a peck, that would work out for the row at thirty bushels, which at 3s. per bushel, not a big price for a first-class sample, would give a return for the row of £4 10s. What vegetable is there that would pay better, even after cost of rods, seed, labour, and manure was deducted? Were an acre of good ground well trenched in the winter and heavily manured, then sown with high-class Runners for staking, as described, at 10 feet apart, using the intervening ground for early dwarf Peas, followed by Lettuces, Radishes, Endive, or similar low crops, the produce would run in value to materially over £120 per acre. A. DEAN.

NATURALISING SPRING-FLOWERING BULBS AND PLANTS.

(Continued from page 223.)

As to soil, a good loam is best suited to the requirements of the majority, and I am inclined to prefer it rather stiff than too light. The grouping should be done in as informal a way as possible, in drifts and masses, in open places among the trees, on the margins of shrubberies, and in orchard or meadow grass, keeping the tall-growing varieties separate from those that are dwarf, and the trumpet Daffodils from the star Narcissi. The white trumpets should not be mixed with the yellow ones, and the dwarf kinds should be planted nearer the path than those that are more robust, as they are easier to see when not too great a distance from the pathway.

The best time to plant is in August and September, but they may be planted much later with good results.

There are besides the Daffodil many other spring-flowering bulbs and plants that will do well in the wild garden, and I will name a few which will be most likely to give the best effect.

Winter Aconite (*Eranthis Hyemalis*).—This is a hardy little plant about 6 inches high, which blooms with or before the Snowdrop. A rather light porous loam suits it best, but it will grow in any soil. It thrives under the branches of deciduous trees, and should be planted freely to cover bare places round the trunks of trees, where, owing to the dense leafage during the summer, other vegetation will not grow. The flowers are yellow, and are borne on short erect stems, which rise through a quaint little frill of green. They seed freely, and soon become established. The foliage dies down early, so that it does not interfere with mowing in the summer.

The Snowdrop delights in a cool bank with rather open soil, and spreads freely in shady places under trees, where it gets the protection of a carpet of fallen leaves during the winter, and shade from the hot sun in summer. There are several varieties, but the common single (*Galanthus nivalis*) and double are the best for naturalising. The bulbs should be planted close together for good effect.

Crocus.—This spring bulb is one of the best to plant in grass. Select open sunny places facing south, where the grass does not grow very long. Plant them in broad masses and the effect on a bright sunny spring morning will be glorious. The purple and white

varieties blend well together, but the yellow are, I think, best by themselves. The purple *Crocus* seeds freely. Do not plant the bulbs deep; 1 inch below the surface is quite deep enough.

Scilla.—Besides the common wood Hyacinth or Bluebell (*S. nutans*) there are other varieties such as *S. siberica*, which are very suitable for planting in the grass; but none are so useful, perhaps, as the common Bluebell, which clothes so many of our woods with sheets of blue every spring. It should be planted in places where the grass is not mown, as it is late in ripening its seed and dying down.

Anemones.—The single and double white wood Anemones do very well in the grass and open spaces in woodlands where the herbage does not grow strong. The blue Anemone *apennina* also, which harmonises so excellently with the yellow of the Daffodils, should be planted freely amongst them, remembering, however, that the Anemones require the full sun to induce them to open their flowers.

Chionodoxa Lucilæ is one of the most beautiful of the early dwarf spring-flowering bulbs. It is perfectly hardy, and should be naturalised on banks and in the grass, where its sprays of drooping blue flowers with their white centres are very effective, especially when planted with the pale yellow Daffodil *pallidus præcox*, which blooms at the same time.

Muscari (*Grape Hyacinth*), with its lovely little conical heads of tiny clustering blue flowers, is another very good subject for naturalisation; the bulbs should be planted quite close together where the grass is not too coarse; it prefers a bank to flat ground; height about 6 inches.

Erythronium Dens-canis (the Dog's-tooth Violet), a very beautiful drooping rosy lilac-coloured little flower, about 6 inches high, with spotted leaves, does very well when established.

Fritillaria Meleagris (the Snake's-head Fritillary), both the purple and white varieties, with their chequered drooping bell-shaped flowers on their slender stems, are suitable for planting in rather cool, low-lying grass land. They spread when they become established if they are allowed time to mature their seed, which they produce freely. The seed is generally ripe about the middle of July. It is easy to gather the seed-pods, however, before the grass is cut and ripen them in a sunny window, sowing the seed when the ground has been cleared.

Pulmonaria (*Lungwort*).—A very useful and early-flowering little plant, about 8 inches high, with flowers opening bright pink and turning to blue before they fade; the foliage is dark green, spotted with paler green. It grows well in shady, rather damp places amongst shrubs, where it can be left undisturbed all the year round, and where it will cover the ground with a mass of leaves and flowers in the early spring.

Saxifraga granulata flore-pleno (the double meadow Saxifrage).—This bears several pretty little double, Rose-shaped, greenish white flowers on each stem about 8 inches high. Will grow in almost any situation and in any soil where there is little or no other vegetation. Even under Beech trees it will form a colony with its slender stems and clusters of drooping flowers.

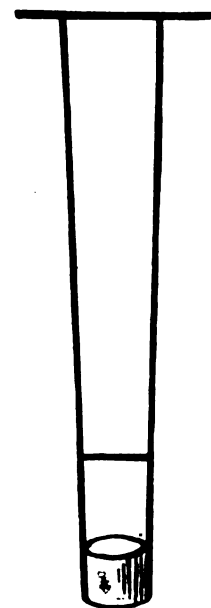
Doronicum (*Leopard's Bane*).—This has yellow flowers. It grows from 2 feet to 4 feet high, and is very useful for covering rough places amongst shrubs and in woods, and will grow, though less vigorously, on bare places in the grass where it gets a little shade.

The common *Primrose* should be on every bank. It will, if allowed to mature its leaves and seed during the summer, soon carpet the ground with its sweet flowers. If planted in masses on the margin of a shrubbery it is very pretty.

Polygonanthus.—The beautiful sweet-scented bunch *Primrose*, so useful for cutting, should be planted in half-shaded places amongst shrubs and on the margin of woodlands. They enjoy the sun when in bloom, but resent being burnt up during the summer. The illustration, although it does not show the dark varieties at all clearly, will give an idea how they may be planted at the edge of a rough shrubbery or woodland. The ground was turned over and plenty of leaf-mould added to give them a start, and the plants were some which had bloomed their first season in the garden and had grown too large for their quarters there. The variety of their colouring is one of their great charms. They are easily raised from seed sown in the spring in boxes or pans in a cold frame, and if pricked out when large enough to handle they will be ready to plant about June or July, and will give an abundance of bloom the following spring, or the seed may be sown in the autumn in a piece of ground prepared for them in the open, and they will then begin to bloom the next autumn, but will not produce many flowers until the spring following.

The above should, each and all, if care is taken to plant them in suitable positions, give good results, and be as pleasing, if not more so, than many of the delicate things which require the protection of glass during winter. There is one great satisfaction in this natural gardening, and that is, when it is once well done it is a permanency, and needs little or no attention afterwards. There are some bulbs in the grass here which have bloomed year after year, ever since anyone can remember, and they will in all probability go on doing so indefinitely if left undisturbed. There is also the pleasure each year of adding some new group and looking forward during the winter to seeing the result.

I will now shortly describe what I have found to be the best method of planting bulbs in the grass. The rough sketch of a tool a local blacksmith made for me from my own design may be useful. I find it answers very well for making the holes in the turf. It punches out a piece 4 inches in diameter to the depth required, and the turf which it lifts is pushed out at the top by the act of punching out the second one. If made rather heavy it will almost by its own weight penetrate sufficiently deep into the ground for planting all but the very large bulbs. If a deep hole is required it can be forced into the ground with the foot on the cross stay. By using this tool a great many holes may be made in a short time, and they are large enough to take the largest bulbs quite comfortably, and of smaller ones, such as Snow-



drops, six or more may be planted in one hole.

It is well to break some of the soil from the turf punched out and crumble it round the bulb when in position before replacing the turf and treading it down. The proper depth to plant most bulbs is about twice their own depth, measured from the shoulder to the base of the bulb. I have tried many other ways of planting. Raising the turf with a spade with a V-shaped cut is not a bad way, but one cannot this way get much idea of the shape of the group that is being planted. A dibber may be used, but it should be a large one, and the holes must be filled with prepared soil placed beneath and over the bulbs, or there will be a cavity beneath the bulb, which is very bad, and, if the soil is at all stiff, a dibber leaves the sides of the hole it makes very hard and unsuitable for the roots to get hold of. Another way is to skim the turf off, loosen the soil beneath, plant the bulbs and replace the turf; but there is one thing against this—a number of bulbs all forcing their way through at once may lift the turf.

I like when arranging groups to make all the holes before beginning to plant the bulbs, and by placing each little turf by the side of the hole it came out of a very good idea will be gained of what the group will look like. When planting the smaller bulbs make the holes quite close together, and those for the larger ones farther apart, according to size. Do the work thoroughly, remembering that it will be permanent, and bulbs once planted in grass are not easy to get up, and a good group well arranged need not be disturbed, but will each season be more beautiful than before, and there are few garden effects more pleasing than that produced by spring flowering bulbs well planted in the grass.

There is one very important thing to remember, and that is, never to cut the foliage off any bulbs or plants until they have died down, and for this reason it is well to select a position where you will not be tempted to cut the grass before the second week in July at least, and it should be left still longer where such late flowering *Narcissi* as the *Biflorus* and the double *Poeticus* are planted.

Bronwylfa, St. Asaph. W. A. WATTS.

ORCHIDS.

ODONTOGLOSSUM CRISPUM AND ALLIED SPECIES.

FOR many years past *Odontoglossum crispum* has been, and still is, one of the most popular Orchids ever imported. Its usefulness and beauty combined are not excelled by many others in cultivation. The varieties of this species are very numerous, and some can be bought for a few shillings, while others cannot be had for less than a thousand pounds. The former are, nevertheless, beautiful, and for decorative purposes are more suitable than the valuable ones.

CULTIVATION.

Generally speaking, *Odontoglossum crispum* is one of the easiest Orchids to grow, yet to get perfection of growth and flowers requires perseverance, cultural skill, suitable houses, and, in addition to these, a proper position also. To bring out the true character and colouring of the flowers of the spotted forms of *Odontoglossum crispum* is of the utmost importance, yet this is never done unless the plants are grown in suitable places. For instance, if a spotted form of *O. crispum* is grown in a district suitable to them the commercial value of the plant may be one hundred pounds; remove the same plant for a year to another district, allow it to bloom and it may

not then be worth one hundred shillings, yet the health of the plant may have remained unimpaired and the size of the bulb increased.

IMPORTED PLANTS.

Examine these as soon as they arrive, cut away dead and decaying bulbs, clean, and make tidy. If sound and otherwise in good condition they may be potted up without delay; if, on the other hand, they are shrivelled and there are signs of decay in many of them, they should be laid out upon the stage in a well shaded part of the house upon sphagnum moss or some damp material and occasionally sprayed until the young growths are on the move, when they should be potted up (in not too large pots) in the usual way.

REPORTING.

With *Odontoglossum crispum* and its allies September is a favourable month to perform this work. Root disturbance during very hot weather is injurious to them, while in autumn they have time to recuperate before winter sets in. It is therefore a suitable time to look through the *Odontoglossum* houses and repot, if necessary, any that are in or near the proper stage, i.e., when the young growths are a few inches long. Do not disturb the plants unless they really need it; resurfacing with fresh sphagnum moss will suffice for those that have sufficient rooting space. When it is not necessary to disturb the plants with the object of placing them in the correct position in the pot, they should be transferred intact. A good general compost for *Odontoglossums* consists of chopped sphagnum moss and good fibrous peat in equal proportions, with chopped Bracken rhizomes used as a substitute for crocks, filling the pots about half their depth with this substance and the remainder with the above-mentioned compost, pressing it moderately firm, and working in among it a few rhizomes to allow a freer passage of water. *Odontoglossums* also grow equally as well if potted entirely in leaf-soil, with one or a few crocks over the bottom of the pot. The leaf-soil must not be too dry and by no means wet, and placed moderately firm and evenly round the roots of the plant, the base of the latter being kept just below the rim of the pot, which should be filled with leaf-mould to within half an inch of the top, and finally surfaced with a layer of fresh, finely-chopped sphagnum moss.

F. W. THURGOOD.

Rosslyn Gardens, Stamford Hill, N.

CULTURE OF ODONTOGLOSSUMS.

THESE are among the most popular of Orchids. Their culture is so easy that all who possess a glass structure should have a few varieties of them. A house having a temperature varying from 45° to 55° will suit them. *Odontoglossums* like plenty of light, and therefore should be shaded only from direct sunshine. Being very impatient of root disturbance, they must not be potted except when necessary; chopped sphagnum and peat is the compost generally used, but I strongly advocate the use of Belgian leaf-soil and sphagnum. Place the plants near the glass, and during the growing season give plenty of water. Damping the stages with liquid manure water has a beneficial effect upon the plants. Ventilation is an important factor, and, when possible, air should be admitted to the house under the stages. The atmosphere of the house should never be allowed to become stagnant. Being evergreen, *Odontoglossums* do not, as some suppose, require to be kept dry during winter. Water may be withheld for a time, but on no account should the compost be allowed to become dry.

Imported plants by the time they reach the cultivator's hands are in a very shrivelled condition. First of all, cut out all rotten and useless bulbs, and place them in boxes in which has been placed some damp sphagnum. They should be potted as soon as they show signs of growth. Imported plants should never be placed in a high temperature to start them.

JOHN R. MORGAN.

Waddesdon Gardens, near Aylesbury.

DAHLIAS AT CRAWLEY.

THE enviable position attained by Messrs. J. Cheal and Sons as Dahlia experts justifies one in expecting to see a display of a somewhat unique kind when visiting their well-known nurseries at Crawley, Sussex. There is, indeed, a most representative collection, each type of this glorious autumn flower having a large area devoted to its culture. For the single-flowered sorts Messrs. Cheal have long been famous, and on the occasion of a recent visit, notwithstanding the severe undergrowth of the previous day, the singles were in fine condition. Recently in THE GARDEN the appearance of the old decorative Dahlias was greeted, but this should not give lovers of these flowers much concern, as with the singles, Pompons, and the erect-flowered Cactus Dahlias of to-day we have plants for garden embellishment of which too much cannot be said in their praise.

THE SINGLE-FLOWERED SORTS

Lowfield Nurseries, Crawley, were a picture, for rich and pleasing colours, combined with purity and elegant form, creating an effect in the garden which few persons are probably aware they are capable of. Some of the more noteworthy single-flowered varieties are Hugo, a rich scarlet, shaded purple, and a plant with a good habit; Emma, a rich dazzling crimson self, with a plain disc, making a fine contrast; Columbine, a brilliant rose colour, with stiff erect stems and flowers of perfect form, and a bushy habit; Lady's Eye, a pretty mauve-coloured flower, with a crimson ring round the disc; Snowdrop, a finest white single yet introduced, being a seedling raised by this firm. This plant is to be put out in the spring of 1904. Another new sort raised by the Messrs. Cheal is Serita, being a splendid companion to the last named, but in this instance the colour is a rich crimson, with a purple shading towards the margin of the florets. At Crawley this sort is regarded as a perfect "garden" plant. The best striped sort undoubtedly is Meta, a deep orange, striped and shaded crimson-scarlet. There were many other really first-rate varieties, but space does not allow one to describe them. Hard by

THE POMPON VARIETIES

were most interesting. The plants were making a really fine display, their freedom of flowering being quite remarkable. The better Pompons, which, of course, were represented by small to medium-sized blooms, were easy to distinguish, and the following were the more noteworthy varieties: Bacchus, an old and tried sort, colour bright crimson-scarlet, very neat compact flowers; Darkest of All is, as its name implies, a very dark sort, developing flowers of good form quite freely. A pretty coral-red flower is Ernest Harper, and the plant in this instance is free flowering. No collection of Pompons would be complete without Nerissa; its pleasing soft rose colour, tinted with silver, gives the flowers a very refined appearance. Rosebud is a neat and well-built flower of a white colour, edged bright rosy pink. The blossoms are small and the plant re-flowering. The cardinal-red tipped white flowers of Tommy Keith are well known. Most exhibits of the Pompons include a bunch of this consistent variety. Thalia is valued because of its rose-pink flowers, which are of a lovely shade of this colour, with a well-defined eye of ivory white. Pale apricot flowers always have a charm, and in the case of Sunny Daybreak the flowers are edged with rosy red. A pure white of lovely form is Violet; as a plant for producing out flowers this variety has a good reputation. In Dr. Jim we have a Pompon of a most consistent kind; the plant bears very neat flowers, heavily edged rosy purple on a pale ground. Other good sorts are Adurene, crimson-scarlet; Adelaide, bluish, edged lavender; Crimson Gem, deep crimson, shaded purple; Jessica, amber, edged with red; and The Duke, a deep velvety crimson. Visitors to

THE CACTUS DAHLIAS,

which occupy a very large area, were numerous, and from this fact it is easy to see where the keenest interest is felt. The collection here em-

braces all the newer varieties, as well as the more praiseworthy of the older ones. There were many excellent seedlings, for which it seems safe to predict a brilliant future. A fact to be given prominence on this occasion is the attention that is being given to the raising and introducing into commerce of plants of varieties with more erect flower-stalks. In this respect there is a great improvement, and in the case of varieties mentioned below this essential characteristic was well-defined. A grand seedling Cactus-shaped flower is Mrs. D. B. Crane. This is a pure white sort, with long florets of true form and large size. The following were selected as the best dozen sorts of this type from the whole collection, and those with stout erect flower-stalks were regarded with special favour: H. F. Robertson, a deep yellow of good form, free and distinct; J. H. Jackson, a deep glossy crimson-maroon, almost black; this is a flower of good form and the plant is a free bloomer. A prettily curled and twisted variety is Mrs. Mortimer; the colour is a rich terra-cotta or salmon red, and the flower is quite distinct. Mrs. de Luca, a Crawley seedling, is highly spoken of, and rightly so; it is a profuse bloomer, bearing flowers of a high standard of quality, colour a rich shading of orange and yellow. The rich bright vermilion ground colour of Columbia, the tip and centre of each floret being pure white, gives us a flower of a most pleasing kind; the form in this case is excellent. Clara G. Stredwick is one of the most perfect of these flowers, its lovely clear salmon shading to yellow at the base of the florets making a most attractive bloom; the plant is dwarf and free flowering. Another good rich dark velvety maroon is Aunt Chloe; the florets are beautifully pointed and build a well-finished flower. Mrs. Winstanley is another flower of refined appearance and good form, colour soft scarlet, shading to yellow in the centre; this is a free and continuous bloomer. The clear yellow blooms of Mrs. Edward Mawley have caused this variety to be regarded with the highest favour; the florets are long and slightly incurve, and the plant is good for all purposes. Ajax is a rich orange-coloured flower, suffused with salmon, having twisted and curled florets. Floradora is a flower of splendid shape, with blossoms on stiff stems well above the foliage, colour wine-crimson; Mrs. H. J. Jones, scarlet, edged cream, and heavily striped white, is most attractive, and the plant has a fine habit.

SHOW AND FANCY SORTS

are also cultivated to a large extent, the best of each section being represented in good form. The Tom Thumb Dahlias still find much favour with the general public, and their pretty single flowers on plants of compact and bushy habit are much admired.

SOCIETIES.

READING AND DISTRICT GARDENERS' ASSOCIATION.

THE last two gatherings of the members of this association were of a most enjoyable character, visits being paid to Danesfield, Marlow, by permission of Mr. R. H. Hudson, and to Hillaide, Reading, by invitation of the president. The outing to the former place was by steamer, and the party numbered about sixty. Arriving at Medmenham the visitors were met by Mr. J. Gibson, the head gardener, and conducted across the meadows to the polo ground, where lunch was partaken of. The president, Mr. Leonard Sutton, presided, and on behalf of the members tendered to Mr. Hudson their thanks for allowing them to visit Danesfield for the second time. After lunch the party first inspected the kitchen garden, and needless to say great interest was manifested in the various crops of vegetables, specimens from which have made the name of Danesfield famous in horticultural circles throughout England and Scotland during the present year. A stroll through the grounds and a game of cricket made the remainder of the day pass pleasantly.

The visit to Hillaide took place on the 14th ult., and was the first meeting of the present season. Previous to the meeting over 100 members sat down to a substantial tea, afterwards making an inspection of the gardens. The subject for the evening's discussion was "Notes on a Recent Visit to the Gardens at Bear Wood," questions on the culture of crops seen to be answered by the head gardener, Mr. W. Barnes. This proved to be a very interesting evening. Those taking part in the debate were the President, Messrs. Powell, Fry, Exler, Judd, Burditt, Tunbridge, Challis, Hinton, D. Dore, E. J. Dore, Lever, and Alexander. The subjects touched on were Strawberries, Begonias, Peas, Melons, Carnations, Vines, Peaches, Cauliflower, Potato, Sea Kale,

Onions, Lily of the Valley, Beans, Celery, Solanums, soils, &c. Before separating a hearty vote of thanks was accorded to the president for his kind hospitality and to Mr. Barnes for leading the meeting. Several new members were elected.

BRISTOL AND DISTRICT GARDENERS' ASSOCIATION.

THE closing meeting of the summer season was held at St. John's Parish Room on Thursday, the 24th ult., Mr. E. Poole, F.R.H.S., presiding over a good attendance. The lecture for the evening was given by Mr. H. Kitley, his subject being "The Duties of a Gardener." He traced the life of a gardener from the time when he would enter an establishment as garden boy until he managed to reach the highest pinnacle of his profession. Among many good points made by the lecturer was the necessity for beginning at the bottom rung of the ladder, and the still greater necessity for continued perseverance if the learner had any hope of being able to grapple with the many and varied duties of his profession. Gardening, he claimed, demanded and deserved the closest attention on the part of the student who would master the art. It demanded earnest toil, because for the horticulturist there could be no cessation from the multitude of duties he has to face, and it deserved his noblest powers because, poorly remunerated though the gardener is, yet he has the assurance of belonging to a profession ranking among the highest in the world. Mr. Kitley was heartily thanked for a lecture which from beginning to end maintained a very high level. Prizes offered for two bunches of black Grapes were secured by Mr. J. B. Brain (gardener, Mr. Atwell), Mr. A. Cole (gardener, Mr. Bird), and Mr. W. F. Powell (gardener, Mr. Balke). Certificates of merit were awarded Mr. A. Cole, for three Cockscabs; Mr. Ambrose, collection of Sweet Peas; and Dr. Eager (gardener, Mr. Cane), three Odontoglossum crispum. A certificate of special merit was recommended for a box of fine Magnum Plums sent by Lady Cave (gardener, Mr. Poole).

ROYAL HORTICULTURAL SOCIETY.

CHISWICK, SEPTEMBER 29.—FLORAL COMMITTEE AWARDS.

THE following received an award of merit:

Chrysanthemum Polly.—A very free and profuse semi-early flowering kind, in which the dominant colours are chestnut-red and orange. These are in almost equal proportions, and the flower is well upheld on good stems. From Messrs. Wells and Co., Limited, Redhill.

Lilium speciosum magnificum.—Despite expressions of opinion to the contrary, this is undeniably a fine, as it is also a handsome, form of *Lilium speciosum*; indeed, it may be cited as one of the most decided forms of *L. speciosum* we have seen, and we speak with a knowledge of some thousands of bulbs during a quarter of a century. It is less blood-red and more rosy than *L. cruentum* generally, while the massive, less reflexed flowers at once command attention by a greater presence than is clear to all admirers of good garden plants. This handsome flower came from Messrs. Wallace of Colchester.

Dahlia Spotless Queen.—A nearly pure white Cactus Dahlia of somewhat dwarf habit. Shown by Messrs. Green and Co., Dereham, Norfolk, and by Messrs. Dobbie and Co., Rothsay.

Dahlia Spitz.—A very brilliant red-scarlet Cactus, with slight tip of orange to the florets. A very showy and effective kind. From Messrs. Dobbie and Co., Rothsay.

Dahlia Amos Perry.—This is the variety that has been selected for the special prize offered for the best garden or decorative Cactus Dahlia, the award having been conferred by reason of the erect character of the flowers and the strong all-supporting foot-stalks. The special prize was awarded by the National Dahlia Society, and the merit of the variety confirmed by the above committee. From Messrs. Green and Co., Dereham.

Oranges at Mount Edgumbe.—

When in the vicinity of Plymouth it would be worth while for anyone interested in the cultivation of Oranges in tubs to cross the ferry to Mount Edgumbe there to see an exceptionally fine collection. When I saw them in September they were in the Italian garden and near the Orangery in which they are placed for the winter. There are numerous specimens, and many varieties are represented, every plant being in splendid condition. Most of the plants were carrying fine crops of green and ripe fruit. Among others the Myrtle-leaved Orange *Citrus Aurantium* var. *myrtifolia* was conspicuous by reason of its dense habit, small leaves, and small fruits, the latter being borne in profusion. There were also some very fine Seville Oranges and various sweet ones. The plants are grown as standards and bushes, some being of immense size. Some of the standards are quite 20 feet high, with large heads, and stems 6 inches in diameter. The tubs are in proportion to the size of the plants, and these are seldom disturbed at the roots. An annual top-dressing of rich loam and bone-dust is given, and liquid manure twice a year. Mr. Richards, the head gardener at Mount Edgumbe, may be justly proud of them.—W. D.

Amaryllis Belladonna.—Growing in borders along the front walls of the Aroid house and Orchid houses at Kew, large numbers of this pretty West Indian bulbous plant are grown, and at the present time some hundreds of spikes of

blossoms may be seen in various stages of development. Growing side by side with the type may also be seen the variety called A. B. kewensis. This originated at Kew, and differs from the ordinary Belladonna Lily by being of stronger growth, having larger heads of flowers, the flowers much deeper in colour, and by flowering a little earlier. At Tresco Abbey, Soilly, the type and the variety are grown side by side in beds in the open, and about the middle of September the variety was in full flower, while the majority of plants of the type had only thrown their spikes up a few inches above the ground. For warm, well-drained borders along the wall of a house the Belladonna Lily is very suitable, flowering, as it does, when outdoor flowers are becoming scarce, for when well established it flowers freely annually, and the spikes will either stand for a considerable time on the plants or cut and placed in water indoors.—W. D.

Solanum pensile.—This is one of three climbing species of Solanum, all of which have for several years past been seen in good condition at Kew, and in many gardens where at present unknown they might be advantageously cultivated. The species at the head of this note (*S. pensile*) is a free, slender growing climber, whose flowers, produced during the summer and early autumn months, are borne in long, pendent racemes, and for clothing a rafter in the stove or intermediate house it is well adapted, as its drooping, informal style of growth eminently fits it for this purpose. The starry flowers are about 1 inch across, of a bluish purple colour, with a yellow eye. In Demerara, where it grows wild, this Solanum behaves much as our British *S. dulcamara* at home. A second species (*S. seaforthianum*) is said to have been introduced about a century ago, but it was for many years lost or nearly so till within a recent period. This has prettily divided bright green leaves and large drooping clusters of deep lilac blossoms with a yellow centre. Though grown for many years at Kew, strange to say it does not occur in the "Kew Hand List" either as *S. seaforthianum* or *S. venustum*, under which name it was figured in the *Botanical Magazine*. The third species (*S. Wendlandii*) is one of the finest of all climbers for a large, light structure. The flowers of this are lilac-purple, 2 inches or even more in diameter, and borne in huge pendent racemes. To this note of climbing Solanums must be added the name of *S. jasminoides*, which in the West of England is such a desirable hardy climber.—T.

Chrysanthemum Mrs. A. Willis.—This is one of the most recently introduced early-flowering Chrysanthemums, and, owing to its parentage, is sure of a good reception. It is a sport from the well-known early-flowering Japanese Mme. Casimir Perier, the colour being a pleasing shade of tawny yellow, shaded and striped with red. In their earlier stages the blooms are very pretty, the red colouring being much better defined than is the case with the blossoms as they age. I have before me a vase of the rich yellow Horace Martin and this new variety in association, and the contrast is distinctly pleasing. Left to develop its growths in a perfectly natural manner, handsome sprays, each one containing quite a number of charming blossoms, may be cut for decorative uses. Each flower may be detached from the spray with a useful length of flower stalk, and this must be considered a decided advantage, as individual flowers may be used without altogether spoiling the spray. No one would think of disbudbing these early sorts after seeing the grand display which naturally-grown plants produce. This fine sport inherits all the good points of the parent variety, and attains a height of about 3 feet. Its period of flowering commences in late August and continues well into October.—D. B. C.

Garden labels.—Labels of some description are an unfortunate necessity in the majority of gardens, but the great drawback to the general run is that, while clearly indicating the plants by name or number, they detract from their beauty by the uncompromising formality of their appearance. After trying all manner of labels, and being

dissatisfied with every one, I have settled upon a form which, though retaining the name in perpetuity, is practically inconspicuous. I have a sheet of copper, one-thirtieth of an inch in thickness, cut into pointed labels 5 inches long and three-quarters of an inch wide. On these, with letter dies an eighth of an inch high, I stamp the required name, which is absolutely permanent, while the copper soon assumes a dark brown colour. Thinner copper is inadvisable, since it is difficult to insert into the soil and fails to maintain an upright position.—S. W. F.

Spiraea Anthony Waterer.—It has been suggested that this *Spiraea* cultivated as compact bushy specimens in pots would make an excellent plant. It is well adapted for pot culture, as it has been found to begin to bloom when only a few inches high, and when full of compact trusses of crimson flowers is sure to be attractive. More than that; it has been found possible to have it in bloom not only during summer and autumn, but also through winter and up to Easter. It is thought it can be made particularly useful in Easter decorations. Certainly, it is one of the most beautiful shrubs of recent introduction, but time is required for such a subject to become thoroughly known. It can now be purchased at a very reasonable price.—R. D.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 30, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Names of plants.—H. T. Allen.—*Abelia rupestris*.—H.—*Asclepias tuberosa*.—J. R. K.—*Pernettya mucronata* and *Hypericum patulum*.—Mrs. Davenport.—Most probably *Dimorphanthea Eklonia*, a tender perennial, but the specimen was withered on arrival and no leaves were sent, so it is impossible to say with certainty.—W. S. Tillett.—Probably *Mollotus officinalis*, but the specimen sent was too incomplete for correct identification.—S. T., Ulverston.—*Epilobium nummularifolium* var. *longipes*.

Book on table decoration (W. BALCOMBE).—We are sorry that we know of no book on this subject.

Book on Trees (A. HILL-WALKER).—There is no 1s. or 1s. 6d. book on trees; the cheapest are A. D. Webster's "Ornamental Trees and Shrubs" (*Gardening World* office, Shoe Lane, E.C.), and "The Tree Book," recently published by Messrs. Lane, Vigo Street, W.

Gardening instruction (E. D. D. S.).—Your best plan would be to encourage the young men to study for the examination in Horticulture, which is held annually in April by the Royal Horticultural Society. You can obtain a syllabus of the subjects prescribed for study from the secretary, 117, Victoria Street, S.W. Medals and certificates are awarded to the successful candidates.

Fungus on drive (T. R. OWEN).—The Alga you found so plentiful on your carriage drive belongs to the genus *Noctoe*, commonly known as Star Jelly or Fairy Butter. This plant often makes its appearance suddenly after rain on paths, &c., and was considered by the ignorant and superstitious to have fallen from the skies. Probably there are always a number of the spores floating in the air, which germinate whenever they fall on a suitable surface and grow in a remarkably rapid manner. One species (*Noctoe edule*) is used in China to thicken soup.—G. S. S.

Pink Bridal Wreath (E. JONES).—We have been puzzled in exactly the same way as yourself, for seed of the white *Francoa ramosa* saved where there were no coloured forms yielded plants, all of which produced pink flowers, after the manner of the sprays sent. The only explanation which we can suggest is that the flowers of *Francoa ramosa* were originally pink, then the white sport asserted itself, and became generally grown under the name of *ramosa*, so that the seedlings are simply reverting to the original type.

Ivy destroyed (MOONKWOOD).—The caterpillar that is destroying the foliage of your Ivy is that of the scolloped hazel moth (*Odontoptera bidentata*), a very common insect belonging to the family Geometridae. You might destroy them by spraying with a solution of paraffin emulsion or 1oz. of Paris green mixed in ten gallons of water. The Paris green is very heavy, and soon sinks to the bottom of the vessel in which the mixture is, so that you must be careful that the mixture is kept well stirred, or else some of it will be too strong and the remainder too weak, and be sure that the undersides of the leaves are wetted as well as the upper.—G. S. S.

Wallflowers diseased (AJAX).—Your Wallflowers are attacked by the club-root fungus (*Plasmodiophora bras-*

sica), a disease to which nearly all cruciferous plants are liable. I should certainly pull up and burn any plant which you think may be infected; probably those which are now diseased will escape. If you transplant any of them you need not trouble to dress the roots with any fungicide, for if the roots are infested by the fungus no outward application will be of the slightest use, but if they are not, and are planted in ground which is free from the fungus, they will not be diseased. The soil in which the plants are now growing should be cropped with plants which are not members of the family Cruciferae for at least two years or fallowed for some months and well dressed with gas lime.—G. S. S.

Rose queries (G. W.).—1. The variety Dawn is a very vigorous Rose, and should be planted in the centre of the bed, its growths supported by a stake. The four other varieties—Mrs. Paul, Hermosa, Irish Glory, and Chequerboard—would need quite 4 square feet for each plant in order to develop their full beauty. Providing your bed is large enough, there is no reason why they should not be grown with such plants as Lavender, Iris, and Day Lilies. 2. Round bed to hold seven plants of Mme. Jules Grévy should be 4 feet in diameter, but 3 feet would suffice if space is limited.

Grapes unsatisfactory (J. H. J.).—The foliage of your Vine is healthy and clean, and we can detect no disease in either leaf or berry. Judging from appearance we conclude you have allowed the Vines to carry too heavy crop, and that the atmosphere of the house has been too moist, either with the long-continued wet weather or through insufficient ventilation. The skin of the Sweetwater Grape is very thin, and must have a fairly dry atmosphere, especially when it is on the point of ripening.

Roses failing (E. MORLAND).—As you say Mark Houtte and Crimson Rambler will grow very well, we are inclined to think there is more in the selection of suitable hardy and vigorous varieties than in the matter of soil. The latter, however, will certainly bear improvement. It is possible to add some good turfy loam from pasture land. If you could reconstruct your beds or borders and add at least two-thirds of this soil, mixing with it some bone-meal and well-rotted stable manure, you should be able to grow many of the delightful Roses that are now procurable, for instance, Caroline Testout, Marie d'Orleans, G. Nabonnand, Mme. Ravary, &c. If the soil is really deficient in lime a dressing in November at the rate of half a pound to a square yard would be of much help to established plants, but we should not advise its application to any newly-planted beds this year.

TRADE NOTE.

A BULB PLANTER.

Now that the bulb planting season is here, the "Bulb Planter" sent out by Messrs. Barr and Sons, King Street, Covent Garden, will be found of great value where planting in grass is required. It cuts out a clean piece of turf 2 inches in diameter and of sufficient depth, and on making the second cutting clears itself of the first piece of turf, which lies ready at hand for covering the bulb. This handy implement saves an immense amount of time and labour, and the soil is not in any way tightly pressed and made hard, which is the case when an ordinary dibber is used, and the appearance of the grass is not spoiled; in fact, after planting 10,000 bulbs with this tool on a green sward one could hardly detect that the grass had been touched.

PUBLICATIONS AND BOOKS RECEIVED.

Commencing with the October part, which will be the first of a new volume, *The Studio* will be permanently enlarged by the addition of a considerable number of pages. The series of articles on the subject of the late Mr. Whistler, accompanied by many illustrations in colours and in black and white, will be continued. The special winter number of *The Studio*, entitled "The Genius of J. M. W. Turner, R.A.," will be ready in October. As is usual in the case of special numbers of this magazine, reproductions in colour will form an important feature of the publication, while sixteen facsimile illustrations of rare plates of the "Liber Studiorum," reproduced by a special process, will be included in the work.

CATALOGUES RECEIVED.

Grasses.—MM. Vilmoren Andreux et Cie, Paris.
Roses.—Messrs. William Paul and Son, Waltham Cross; Benjamin R. Cant and Sons, The Old Rose Gardens, Colchester.
Daffodils.—Messrs. Barr and Sons, King Street, Covent Garden, W.C.
Lilacs and Hardy Plants.—Messrs. Wallace and Co., Kilmfield Gardens, Colchester.
Bulbs.—Messrs. Gilbert and Son, Dyke, Lincoln; Amos Perry, Winchmore Hill, N.; Barr and Sons, Covent Garden; Webb and Sons, Worsley, Stourbridge; Ant. Roosen and Son, Overveen, Haarlem (Agents for Great Britain, Metcalf and Co., 3, Cross Lane, St. Mary-at-Hill, E.C.); G. Zeuthen, Keaton, Kent.
Hardy Perennials, Alpine Plants, &c.—Mr. Maurice Prichard, Christchurch, Hants.

* * The Yearly Subscription to THE GARDEN is: *Island*, 15s.; *Foreign*, 17s. 6d.

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[OCTOBER 10, 1903.]

DISEASE-RESISTING POTATOES.

our last week's issue (October 3) we published a letter from Mr. G. R. King giving his experience as to which are the best disease-resisting varieties of Potatoes. As this subject is of such importance to horticulturists and agriculturists throughout the kingdom we express a wish that other growers would note the results of their experience. We have already received several letters in reply, and we publish below, hoping that others will kindly send notes upon the value and uselessness of those varieties of Potatoes largely grown at the present time. The crop is of enormous importance to the gardener, market grower, and farmer, such a season as the present the destruction by the Potato disease must have been serious and widespread. Growers therefore had an opportunity of proving the merits of the sorts they have grown as resisters. If they will kindly write us their opinions they have formed they will assist us to find out which are really the reliable Potatoes to grow, and their results will be welcomed by other growers. The present depressed state of agriculture is only too glad to turn their hands to a crop that gives promise of a fair return, among these must be reckoned the Potato. The introduction of varieties that regularly produce large crops and successfully resist ravages of disease, Potato culture for food and home use might be made a more profitable industry than it now is. In order, therefore, to be able to determine the most healthy sorts we invite the co-operation of large and small growers. Other notes as to variety, cropping, kind of soil, &c., will also be welcomed.

frequency with which the question "Which Potatoes would you recommend me to grow next year?—mine are so badly diseased" is asked indicates a most serious state of affairs. To these questioners my reply is: "You must experiment and find out for yourself what sort of Potato, round or oval, and next, which varieties will do best in your particular soil. When you have found out those which give the best results stick to them for your main crop. If you are so inclined, by all means try new varieties, but only in small quantities, and do not form any decided opinion from one year's trial. A frequent change of seed is most desirable."

In these gardens we can scarcely grow a round Potato fit to eat. The soil is very light, and for manure we use, perforce, almost solely leaf-mould. Our supply of animal manure is not sufficient for the needs of the other crops, and the deficiency cannot be made up with chemical manures.

Previous to this year Early Puritan served us admirably as our earliest Potato; whether grown in frames, borders, or in the open ground, it rarely showed signs of disease to any extent; but this year it has been rather badly attacked. Myatt's Prolific has escaped the disease to a great extent, but with me this variety is a light cropper, and the tubers are somewhat small.

Although not a heavy cropper, Satisfaction has behaved well. We have a very fair crop and little disease. Up-to-date is our mainstay; of this sort we grow a large quantity. Here it is an enormous cropper, of high quality, and a good keeper; and, although a goodly number of tubers are diseased, there is a very satisfactory crop, providing that there are no losses in the store, and on this point I am doubtful, for the continued wet is greatly against storing the tubers in anything like fair condition.

As preventive measures—unfortunately we are not able to spray—I believe in giving the plants plenty of room, so that light and air can freely circulate around the plants. The early sorts are planted 2 feet 6 inches apart in the rows, and the late ones fully 3 feet apart. I am convinced that not only is this a check to the disease, but the crop is heavier than when closer planting is practised, and, of course, the labour of planting and digging is less. As soon as possible all the haulm, diseased or not, is collected and burnt.

Besides the varieties above named, several growers in this neighbourhood speak highly of Beauty of Hebron, Windsor Castle, and Daniel's Sensation as being good croppers, and not so prone to disease as many others.

Most of the villagers here grow their Potatoes in "brakes," that is, high exposed land which some years ago was reclaimed from Furze and Heather, and cultivated by a farmer, the last farm crop invariably being winter Oats. The farmer sublets to the cottagers at the rate of 6d. per yard if unmanured, and 1s. per yard if he manures it. Most of the sub-tenants take a plot of 14 yards unmanured, and sow two bags of ordinary corn manure at a cost of 6s. per bag. The farmer ploughs the land, harrows it, and banks the rows. All the labour the cottager does is to plant, hand-hoe between the plants in the rows, and, of course, dig. By these methods they get really good crops, and very free of disease. Next year the "Potato brake" is planted with a green crop, and in the ordinary rotation comes back to Potatoes in about four or five years.—A. C. BARTLETT, *Pencarrow Gardens, North Cornwall.*

In this neighbourhood I may say that the usual conditions have been reversed this year, for owing to the long spell of very dry weather we had early in the summer early Potatoes generally escaped disease. The main crop, however, is very badly affected. Up-to-date, which is the main crop variety chiefly grown in this district, is badly diseased, and I do not see that as a resister it is any improvement on others. Lifting is in full swing just now, as growers are trying to prevent any further ravages, but one's experience tends to the conviction that many tubers, now apparently clean, will go wrong after storage, and the heaps will need careful attention in picking over. I have grown none of the very new and high-priced varieties. One can only hope that among them a real disease resister of good quality and a good cropper may be found, though it seems too much to expect.—J. C. TALLACK, *Shipley Hall Gardens, Derby.*

This year has not proved so bad in the gardens here as I have seen, though some varieties are touched with the disease. We grow four varieties of Kidney Potatoes, namely, Ringleader, Sharp's Victor, Star of Reading (Brinkworth's), and May Queen. These four varieties are only slightly diseased. Star of Reading is the worst of the four. I consider it the earliest, though not the best variety. Ringleader is the best quality. I have grown it here for twenty years. It is also a good cropper. I have seen it badly diseased in some years. British Queen and Cramond Blossom are grown side by side. The former is very badly diseased this year, and the latter are almost all sound. Cramond Blossom is almost new in this district, but I consider it too strong a grower for the garden; the quality is first rate.—W. SMITH, *The Gardens, Oxenford Castle, Dalkeith.*

[Many letters are left over until next week.]

NEW AND RARE PLANTS.

KIRENGESHOMA PALMATA.

FOUND in open woods on Mount Ishizuchi in Japan, at an elevation of 5,000 feet by Dr. Yatabe of the Tokio Botanic Gardens in the year 1888, was this remarkable plant here illustrated. It was described by him as a new genus and placed in the natural order Saxifragaceae, near Hydrangea, although other authorities contend that it more rightly belongs to Crassulaceae or the Sedum family. Seeds of this plant were received at Kew from the Tokio Botanic Garden in 1891, from which a plant was raised and planted in a warm, rather moist position, exposed only to the midday sun. It flowered for the first time in 1892, again two years later, and in 1897, but since then it has done indifferently. This year, when, probably owing to the exceptionally

wet and sunless season that we have had, it has revealed its true character and flowered well.

A perennial herb, it forms a bushy plant 2 feet to 3 feet high (Dr. Yatabe says 3 feet to 4 feet in its native woods), of purplish unbranched stems, clothed with mostly opposite dark green palmate leaves, terminating in leafy panicles of bell-shaped yellow flowers, the corolla of which is composed, when fully expanded, of five very fleshy, somewhat recurved petals. What might be considered by some a drawback to this interesting plant is the fact that the flowers do not all expand, many retaining their globular shape till they fall. This, of course, may be due to its position, which may not quite fulfil its requirements.

So far, no seeds have been ripened on the Kew plant, but it may evidently be increased by division of the root. There is a possibility of its being adapted for planting in shady places or open woods where the soil is of a moist nature and where its rich yellow flowers would provide a characteristic feature.

W. IRVING.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 13.—Royal Horticultural Society's Drill Hall Meeting, 12 noon; Horticultural Club, Hotel Windsor, lantern lecture by Mr. Charles E. Pearson on "Bird-nesting in Russian Lapland," 6 p.m.; Committee Meeting of the National Rose Society, 3 p.m.

October 14.—East Anglian Horticultural Club Meeting.

October 27.—Royal Horticultural Society's Drill Hall Meeting.

November 11 and 12.—The Liverpool Horticultural Association's Chrysanthemum and Fruit Show.

Royal Horticultural Society.—The next fruit and flower show of the above society will be held on Tuesday next in the Drill Hall, Buckingham Gate, Westminster, 1—5 p.m. A lecture on "Autumn Strawberries and Raspberries" will be given by Mr. James Hudson, V.M.H., at three o'clock.

Horticultural Club.—A lantern lecture.—The next house dinner of the club will be held next Tuesday at 6 p.m. at the Hotel Windsor. Mr. Charles E. Pearson has kindly promised to give a lantern lecture entitled "Bird-nesting in Russian Lapland." Mr. Pearson has informed the secretary that in several of the slides (kindly lent by Mr. Henry J. Pearson) Arctic plants are shown.

United Horticultural Benefit and Provident Society.—The seventeenth anniversary dinner will be held at the Holborn Restaurant, High Holborn (Royal Venetian Chamber), on Tuesday, the 27th inst., at 6.30 p.m. Peter Barr, Esq., V.M.H., has kindly consented to preside. The secretary, Mr. W. Collins, 9, Martindale Road, Balham, S.W., will be glad to know, not later than Saturday, the 24th inst., how many seats members may wish to reserve for themselves and friends. The musical arrangements will be under the direction of Mr. W. Morris (Amphion Quartette Singers, Acton). The tickets are 5s. each.

Lilies in Regent's Park.—Among the many good flowers in Regent's Park the Lilies are particularly bright. They are used with excellent effect towards the margins of some of the larger beds; peeping between sombre-hued foliage plants they add bright colour just where it is wanted. The typical *Lilium auratum* is very fine, in fact we have never seen it better out of doors this season. *L. auratum rubro-vittatum* marked with deep red bands down the centre of the petals is very striking, and attracts attention from some distance. *Lilium speciosum* and some of its varieties are very noticeable also; in fact, Lilies are so numerous

and so well grown as to fill the air with their perfume, which, although it may be rather objectionable in a room, is very pleasing in a London park.

Beds of succulent plants.—In several of the London parks large beds filled with Agaves, Aloes, Sedums, Echeverias, and other allied plants are quite a feature, and an excellent one too, for they are a pleasing change from the mixed beds of flowering and foliage plants that are now so familiar in all public and many private gardens. In both Battersea Park and Regent's Park the succulent plants have been used with striking success. In the latter there is a large bed of irregular shape filled with them, and the most striking plants used are the Agaves, *A. americana* chiefly. Large specimens of this are placed on mounds at intervals throughout the bed, while close around them are smaller plants of the same species, *A. a. variegata* and *A. applanata*. The surface of the bed is carpeted with such plants as *Echeveria glauca*, *Mesembryanthemum cordifolium*, *Sedum glaucum*, and *Lotus jacobaeus*. Various other Aloes, *Dracaenas*, *Echeveria metallica*, &c., are prominent in different parts of the bed, whose undulating surface is altogether most pleasingly planted.

Cockscomb Glasgow Prize.—Those who are on the look out for a really good Cockscomb should make a note of this, for it is one of the finest I have seen. It would be interesting to know by whom the strain was originated. It is planted in Regent's Park in a small border, backed by a Privet hedge, and although there may not be more than 100 Cockscombs the result gives one of the prettiest bits of colour association in the park. The deep rich crimson of the Cockscomb and the green of the Privet go admirably together. The leaves also of the former are now crimson-red, so that with the good heads of flower that are admirable in themselves and the richly coloured foliage as well, Cockscomb Glasgow Prize is a plant whose value in the flower garden in the autumn is hardly to be overstated.—A. P. H.

South-Eastern Agricultural College.—The South-Eastern Agricultural College, Wye, commenced its tenth session on the 25th ult. Seventy-seven students are in residence, this number being an increase of twenty-two on the number at the commencement of last session. The equipment of the college has been improved by the addition of a carpenter's shop, and of an ironwork shop fitted with lathe and three hearths for farriery and other forge work. A forestry department is also in course of establishment, additional land having been taken for the purpose.

Outdoor flowers can often be saved for three or four weeks' blooming by covering with papers or other protection the first one or two frosty nights; it is worth trying.—*The American Florist*.

Lady Warwick College.—We have received a booklet descriptive of the new Lady Warwick College, whose headquarters now is Studley Castle, Warwickshire, instead of the Lady



KIRENGESHOMA PALMATA AT KEW.

Warwick Hostel, Reading. It contains a long letter written by Lady Warwick to the students, in which we make the following extracts: "The fact that Studley Castle is in Warwickshire, within a distance of Warwick, is a great point in its favour as I have long wished my hostel to be within reach of one of my homes, so that I may have constant communication with it, and able to devote more time to the detail of its affairs. Studley Castle is situated fifteen miles from Birmingham, a direct line, and is midway between Redditch and Alcester. Studley Park is 340 acres in extent, not only beautifully wooded in the ordinary sense, but has also been planted with all kinds of rare and shrubs. Accommodation can at once be provided for sixty students, and if there is a great demand than supply it will be easy to add another storey. There already exist the beginnings of every kind of garden, from the Rose garden to the Italian garden. In the walled garden, about a mile from the house, is a very fair range of about 400 feet; then there is a large orchard on other land laid out." Lady Warwick concludes her letter thus: "The future lies in our own hands to make this college second to none in the world for solid practical work, and for training women on useful lines in the sphere we have taken up. I think it is proved beyond doubt that the work—the production of butter, cheese, poultry, eggs, vegetables, fruit, and flowers—kind of work that, for a better word, we call the 'lighter branches of agriculture,' can be profitably done by women. Nor is it hardly necessary to say that training is necessary for success in any branch of life, therefore I know I shall not be in vain to your loyalty to our college, our work, and our Warden to prove what women can accomplish who fix their ideals high, and know nothing satisfies but the best." Full particulars of entrance to the college may be obtained from the Warden. A correspondent recently visited the college and gave an interesting account of the work he found being done there.

Alonsoa Warscewiczii.—This is a most little annual for the flower garden. The brick-red flowers are freely produced when the plants are 18 inches or so high. A succession may be had from July to September if sown early in March. A plant that is so raised and that flowers for so long a time is the most useful to gardeners for small beds in border to larger ones. It is not of vigorous growth so when put out the plants must be placed close together, otherwise the display will be

Mme. Antoine Mari.—These plants this Rose upon its introduction two years ago have no cause to regret so doing, unless that they wish they had planted more of it. It is worthy of being grouped with that best of annuals, *G. Nabonnand*. The general effect of *Mme. Antoine Mari* is white, but its real beauty is in the delicate pink shading and exquisitely pointed buds. These buds are almost pink, and are very conspicuous when peering out among the white expanded flowers. The habit of the plant is dense, as strong in growth as *G. Nabonnand*, and as free from autumnal mildew, which is the otherwise beautiful effect of such Roses as *Edith Gifford*, *Mme. Jules Grolez*, &c.—**P. H.**

Smith's Ornamental Runner.—At the great show of fruit and vegetables at Chiswick last week one of the best trade displays of vegetables was made by Messrs. Richard and Co., Worcester. Among the many interesting vegetables shown by them was a red Bean bearing the name of Smith's Ornamental Runner. It is a semi-climber, reaching 6 feet high, and crops well, particularly at the end of the plant. The pods are of good quality and cook well. They are of good average size, and, striking of all, are heavily splashed with red on a pale yellow ground which shows through in the white. Those who wish for a novelty in the way of runner Beans, without at the same time having to sacrifice quality, should try Smith's Ornamental.

Extraordinary Potatoes.—Rapid advances have been made during the last ten years in the improvement of Potatoes, largely in the matter of quality. At the present time, however, the yielding capacity of varieties seems to be almost even a more important matter, and very rarely the best disease-resisting sorts are becoming widely known. All have now heard of the Northern Star, that became famous on account of its cropping capacity, and was recently sold at such a high price. Messrs. Sutton and Sons showed tubers of a Potato at the Chiswick fruit and vegetable exhibition that, however, has apparently eclipsed even Northern Star in the matter of yielding. One tuber of this new variety, which is called Discovery, when cut up into eyes produced no less than 38 lb. of Potatoes. Surely this is a most record. A Lincolnshire journal gives some interesting particulars about "The battle of the potatoes"—as it is called—which has recently been going on in South Lincolnshire. The favourite sorts are Northern Star, Evergood, and King Edward VII. Mr. Atkinson of Weston, Spalding, an extensive Potato grower, had deposited £25 and invited anyone to dig among his crop of Evergood, offering 20s. for every pound of diseased tubers found, the condition being that the digger should pay £5 for every two hours digging. Messrs. Macleair and Son of New York, near Boston, accepted the challenge, and the result of the digging by two men was that out of nearly 11 cwt. of Potatoes dug only fifteen small tubers were diseased. Their weight was 1 lb. 14 oz. Mr. Atkinson therefore won his challenge, and demonstrated his contention as to the disease-resisting qualities of Evergood. A striking result of the digging was the evidence as to the enormous crop, this working out at more than 18 tons per acre.—**A. P. H.**

Lilium szovitsianum.—I enclose a photograph of a couple of these Lilies, although I am afraid it is not suitable for reproduction in THE GARDEN. [Unfortunately, it is not.—ED.] But it will, at any rate, show you that the growth of the plants was vigorous. The plant in blossom bore fourteen flowers on it, all of which duly opened. For many years I experienced nothing

but failure in my attempts to establish this particular Lily. I tried dormant bulbs without success. Then I tried planting growing bulbs out of pots, but also in vain. At last I found that the only way I could succeed was to start with quite small bulbs and let them get established by leaving them severely alone. I now have some eight or nine groups similar to that photographed, nearly every one of which bloomed this season after two years previous growth without flowers. I should think I had an average of six flowers to each, so that I hope I have at last succeeded with them. They are in ordinary loam in a border facing south.—**T. J. WEAVER, Thirlwood, N.**

Auchincruive, Ayr.—By the kind permission of Mr. R. A. Oswald of Auchincruive and Cavens, a large party of members of the Glenfield Ramblers, an important Kilmarnock Natural History and Scientific Society, visited Auchincruive a few days ago. Under the guidance of Mr. Leven, the head forester on the estate, the party spent an enjoyable time in the gardens of Auchincruive. Among other trees which attracted the notice of the visitors were a noble Oak of unusually large dimensions, large Beeches, a Scotch Fir 11 feet in girth 5 feet from the ground, a Spanish Chestnut 17 feet in circumference, and a Lucombe's Evergreen Oak covering with its branches an area of about 80 yards in circumference. The gardens were greatly admired with their tastefully arranged and admirably cultivated bedding and other plants, while the fine old herbaceous borders were the object of much interest to the admirers of such flowers. Noticed also by many were the fine old Yew hedges. The Rev. Dr. Landsborough moved a vote of thanks to Mr. Oswald before the party left the grounds.

THE ROSE GARDEN.

JOTTINGS ABOUT ROSES.

ON the whole, considering the appalling combination of frost, wind, rain and gloom which has characterised this season, Tea and Hybrid Tea Roses have come out of the ordeal very well, and a comparison with other things—such, for instance, as Geraniums and many other bedding plants—is greatly in their favour. I have been taking careful notes as to which varieties have stood the bad weather well and also those which have failed, and I append the list as it may be of some use to readers of THE GARDEN.

Successes.—*Princesse de Sagan, *Gustave Regis, *Mme. Pernet-Ducher, *La Tosca, *Mme. Berkeley, *Papa Gontier, *Grüss an Teplitz, Killarney, Morning Glow, Mme. Cadeau Ramey, Mme. Abel Chatenay, Antoine Rivoire, Mrs. Bosanquet (China), Mme. Lambard, Liberty, *Marquise de Salisbury, K. A. Victoria, Ferdinand Batel, Ferdinand Jamin, Grand Duc A. de Luxembourg and Marie d'Orleans. N.B.—The varieties marked * are the most impervious to wet.

Failures.—*Etoile de Lyon, Maman Cochet and its white variety, F. Dubreuil, Bessie Brown, Comtesse de Turenne, *Alliance Russe, Comtesse de Panisse, *Mme. Hoste, Souvenir de Catherine Guillot, *Jean Ducher, Beauté Inconstante, *Sylph, and Souvenir de President Carnot. N.B.—The varieties marked * are most susceptible to damp.

It will be noticed that Princesse de Sagan heads my list of successes, and I know of no better all-round crimson bedding Rose, with a dwarf habit of growth, than this. It shares with Papa Gontier the distinction of being indifferent to weather, and this is saying a great deal. Among the really hopeless Roses in a wet season are Sylph, Etoile de Lyon, Alliance Russe, Jean Ducher, and Mme. Hoste. Sylph is such a grand Rose when well grown that it is a great pity it should be so easily spoilt by bad weather. I had some splendid flowers from this variety in 1901, but since then it has completely failed. The new Tea Roses which I have had on trial have not had a fair chance this season for their merits or demerits to be proved.

However, I can recommend four varieties with the utmost confidence, these being Souvenir de Pierre Notting, Morning Glow, Lady Roberts, and Mme. Vermorel.

SOUVENIR DE PIERRE NOTTING.

This is certainly a glorious Rose. From quite a small plant I have cut a number of superb blooms of most exquisite colouring, and as perfect in shape as one could wish. The pointed buds at first are so small that it appears almost impossible for them to open into such fine deep-petalled flowers. Like Maman Cochet (which I consider it excels in beauty, though not in size), its blossoms are so heavy that they droop, and as a consequence their beauty is not seen until they are cut. Apparently they open very much easier than Maman Cochet, and are not prone to damp off as is the case with that variety. With me it has so far not proved a strong grower, and no doubt a hot season would have made some difference in this respect. It appears to have a fair constitution, but I do not expect it to prove very hardy. No doubt the finest blooms will be grown on standards, and in sheltered districts it should certainly be tried in this way. As a bedding Rose it is scarcely likely to be useful, and of course the drooping habit of the blooms is greatly against it for this purpose. Of

MORNING GLOW

I cannot speak too highly. It is a perfect bedding Rose, being a splendid grower, extremely free, and of most exquisite and fascinating colours. It reminds me very much of Mme. Lambard, not so much in colour as in wood, growth, habit, and general appearance. To describe its colouring accurately would indeed be difficult, as, like many of the Teas, it is variable, but rosy crimson usually predominates, suffused with tints of orange, fawn, and yellow. In spite of the continual wet its constant succession of flowers has been but little harmed. A Rose that everyone should grow, and one that will be found in all good gardens as soon as it becomes plentiful.

LADY ROBERTS.

Those who obtained a plant or plants of this variety last autumn are not likely to have regretted their purchase, and one has to go back to the advent of White Maman Cochet to find a variety which from its first appearance in public was received with so much favour as this. One can see at a glance that this Rose is a sport from Anna Olivier, and this fact in itself was naturally a great recommendation, for few Teas are harder or more satisfactory than that good old sort. Sports are sometimes liable to revert, but in Lady Roberts I have not found the slightest tendency in this respect. The colouring is unique and the shape of the flower all that can be desired, and besides these qualities it possesses all the good points of Anna Olivier. My plant has grown and flowered exceedingly well, and given a good season next year it will probably display its sterling worth to still greater advantage. I have never met with a Tea Rose which has more magnificent foliage than

MME. VERMOREL.

This Rose was sent out by A. Mari in 1901, and is, I should imagine, a cross between Maman Cochet and some other variety, because the flowers almost exactly resemble that grand Rose in shape, size, and appearance. In a really good season I should say that this variety will certainly come to the front. Probably owing to the weather, I have been unable to reconcile the colour description given by the raiser with the blooms I have cut from my plant, which have been a very fine ivory yellow shade. The raiser's description is as follows: "Rose and coppery yellow centre, shaded and lined with red, extra large buds on strong stems; growth vigorous." My flowers have shown no trace of rose, copper, or red, but in other respects this new Rose bears out all that its raiser claims for it. The blooms, which are solitary, come as large as those of Maman Cochet, with the added advantage of being held up on splendid long sturdy stems. The growth is vigorous and the foliage massive and of most exquisite colouring. I can recommend this Rose with confidence, and

I learn from one of our leading growers that it has proved very fine under glass.

ABOUT NEW ROSES.

The question is frequently asked as to what becomes of the dozens of new Roses which come from the various Continental raisers each year. If the truth were told I think that at least 70 per cent. of them fall into obscurity and are catalogued, as well as grown, only by the raisers themselves. It is a certain fact that the standard of quality in England is a great deal higher than that of the Continent, and we do not often find our English raisers introducing varieties that are inferior to those already in commerce, as is frequently the case with Continental growers. I am open to admit that numbers of good Roses have been raised abroad which have not proved suitable to an English climate. Also the fact must not be overlooked that there have been cases when a really good new Continental Rose is discarded without being given a fair trial. Such a case came under my notice only the other day, when I had the pleasure of seeing the choice and well-grown collection of Roses made by Mr. and Mrs. Stobart of Belbroughton, near Stourbridge. Among the many good things which I saw none gave me more pleasure than the Hybrid Tea

AMATEUR TEYSSEIER,

of which I saw two fine standards. This fine Rose was raised by M. Gamon, and distributed in 1900. It is a seedling from that capital Hybrid Tea *Souvenir de Mme. Eugene Verdier*, and is more vigorous than its parent. The buds remind me somewhat of *Gustave Regis*, but, instead of being semi-double, they open into fine double flowers of exquisite shape. The colour is perfectly distinct from that of *Souvenir de Mme. E. Verdier*, the centre being deep saffron and the outer petals shaded with canary yellow. This variety is an abundant bloomer, and as a standard it is particularly meritorious, because the flowers all expand together and thus produce a very fine effect. Rosarians who visited the Temple show this year will remember a magnificent plant of *Souvenir de Mme. E. Verdier*, and this variety appears to be especially adapted for forming fine specimens in pots, from the fact that the majority of its flowers are in perfection at the same time. From its behaviour out of doors Amateur Teyssier has evidently inherited the good qualities of its parent, and it is rather astonishing that a really good garden Rose such as this is to be found only in one English grower's catalogue, i.e., that of Messrs. W. Paul and Son.

Buying new Continental Roses first hand is certainly a lottery, and, though many amateurs are frequently tempted to do so by the glowing descriptions, the results are generally disappointing. However, I must plead guilty to buying a few each year, always, however, taking the precaution to obtain if possible a little information as to which of the varieties are likely to prove worthy of trial. The other day I received a note from Mr. Peter Lambert (of Trier) recommending me to try the following four new varieties, all Hybrid Teas: *Königin Carola*, *Frau Lilla Rautenstrauch* (Lambert), *Gustav Grunerwald* (Lambert), and *Oberhofgärtner Terks* (N. Welter). This last is said to be a very fine variety, the result of a cross between *Belle Siebrecht* and *La France*.

A NEW CLIMBING ROSE, PERLE DES NEIGES,

is being sent out from France with a flourish of trumpets, and is stated to be a perpetual flowering Crimson Rambler with white flowers. I always notice that most Continental growers, when giving descriptions, compare their novelties to well-known varieties, and the numbers of new Roses which have been sent out as improvements upon those two popular sorts, *Belle Siebrecht* and *Kaiserin Augusta Victoria*, are prodigious.

THE WORTHY USE OF GARDEN ROSES.

I scarcely think even now that we make as much use of the free-growing Teas and Chinas as their beauty and usefulness really warrant. Certainly when planted in groups they form glorious masses

of flowers, but there are other ways of utilising them which are equally as satisfactory, though seldom met with. At the Bath Botanic Garden Mr. Milburn has planted them amongst beds of *Flag Iris*, and the effect has been to light up these beds when they would otherwise be dull. Moreover, the exquisitely tinted flowers display themselves to great advantage against the cool *Iris* leafage, and this also serves to protect the young shoots from the cold winds of spring. In a garden which possesses a soil of peaty loam the plan has been adopted of grouping China Roses amidst and between masses of the hardy Heaths. The effect is beautiful in the extreme, and these two instances which I have cited only go to prove the adaptability of these lovely flowers for other purposes than being cooped up within the confines of the Rose garden. ARTHUR R. GOODWIN.

USES OF BRITISH PLANTS.

COMPOSITEÆ.

ALTHOUGH this is an enormous family, it does not supply many useful plants at all in proportion to its numbers. We have in England more than forty genera, but the following are the only ones worth mentioning:

Lettuce (*Lactuca virosa* var. (?) *Scariola*).—Some botanists make it a separate species. Like all the plants of the tribe *Cichoriaceæ*, with long, ligulate corollas, it has a milky juice, somewhat like opium, but it is really different. "Lac"—Latin for milk—suggested the name, which also supplied that of a noble Roman family, *Lactucinus*, just as the *Fabii* took their name from Beans (*Faba*). It was introduced in the Middle Ages, as it is mentioned in the fourteenth century as "latewes." The name "Coe" seems to indicate a Mediterranean source, though De Candolle thinks it was of Indian origin. Hooker gives Europe, Siberia, and Himalaya as native places. It was lately found in higher Egypt by Dr. Sickenburger, of Cairo.

Chicory (*Cichorium Intybus*).—Easily recognised by its wiry, branching stem and bright blue flowers of the size and shape of a Dandelion. It is the tap-root, much enlarged by cultivation, which supplies the chicory of commerce when roasted and ground to powder. The leaves when blanched form the salad known as *Barbe de Capucin*.

Several of the *Cichoriaceæ* formed the "bitter herbs" of the Jews.

Tansy (*Tanacetum vulgare*).—This was a remedy for wounds in the fourteenth century. It is bitter and a tonic, being used in the country for fever and other illnesses, and is drunk as a "tea." It was used in cookery in the sixteenth century, when Tansy cakes were highly esteemed in Lent, as well as Tansy puddings, according to Gerarde.

Sea Wormwood (*Artemisia maritima*).—All the species are bitter and aromatic, having powerful scent, as *A. Absinthium* and *Southernwood*. The minute flower-heads of a Russian variety of the Sea Wormwood, dried, constitute the drug "Santonica" of our Pharmacopoeia, and the English name indicates its use.

Wormwood (*Artemisia Absinthium*).—This is the true Wormwood. According to Pliny the name was derived from the goddess *Artemis*. It was a favourite drug in the Middle Ages. It was also hung up in rooms as a preventive from infection. Even in the last century a spray of *Southernwood* with Rue was always placed by the prisoner in the dock as a preventive against jail fever. It is used in beer on the Continent and flavours absinthe. The common Mugwort (*A. vulgaris*) was so-called, as it was also used to flavour beer by our ancestors.

Coltsfoot (*Tussilago Farfara*).—This has been used as a demulcent and pectoral drug. The leaves, being mucilaginous, furnish a suitable remedy for coughs. The leaves are sometimes smoked, being said to be a part of British tobacco.

Elecampane (*Inula Helenium*).—A local and usually naturalised plant, having been cultivated for centuries, as it was a common remedy for sicknesses in the fourteenth century. Its use was for

pulmonary complaints. It is now chiefly employed as a sweetmeat, formed of the candied root.

Chamomile (*Anthemis nobilis*).—This is a common wild flower on the cliffs round our shores. It is not to be confounded with "wild Chamomile" (*Matricaria Chamomilla*). The receptacle of the form is covered with scales between the florets, while that of the latter has none. Both species are (the "wild" being more so on the Continent) stomachic qualities, but in commerce it is used the "double" form, in which the yellow florets of the wild species are converted into white flowers like those of the ray. This kind is also a milder nature than the single and wild form.

CAMPANULACEÆ.

Campanula (*C. Rapunculus*) the *Rampion*, formerly cultivated for its root, which was used as a salad, raw or boiled. Gerarde called it *Rapuntium parvum*, the Small Rampion. The several foreign species are in our gardens. British wild species cultivated are *C. latifolia*, occurring from Banff to North Wales and Gloucester, as well as Surrey. Both blue and white flowered are grown. *C. rotundifolia* is the *Harbottle* of England, but *Bluebell* of Scotland. Of these there are white, blue, and double varieties. *C. Trachelium* and *C. glomerata*, of which there are several cultivated varieties, are also known.

Phyteuma (*P. spicatum*), called *Rampion*, the Great Rampion, by Gerarde, is cultivated for its root as a salad. It is a native of England, occurring in East Sussex, and is a useful native.

ERICACEÆ.

Bilberry, **Blaeberry**, or **Whortleberry** (*Vaccinium Myrtillus*).—The berries were much used in the Middle Ages. They were boiled till thick and honey and sugar were added—in fact, they are now used for tarts in the more northern counties. The fruit is a favourite food of the poor.

Cowberry (*V. Vitis-Idæa*).—The fruit is more eaten on the Continent than in Britain, as round the Baltic. It is said to be sold as Cranberries in London, having been imported from Sweden.

Cranberry (*V. Oxycoccus*).—This is a plant, frequenting peat bogs, &c. It bears a small fruit. Though collected in the mountains of England, the greater quantity are imported from Sweden.

Bearberry (*Arctostaphylos Uva-Ursi*).—This is a trailing evergreen with dark green leaves. Dried is a drug in a pharmacopoeia, valued for its astringency. The berries are only of use for grouse, &c. The leaves are used for tea in Sweden, as well as for a dye.

Strawberry Tree (*Arbutus Unedo*).—This is native of the mountains of Killarney, and is the Spanish group of plants in the south of Ireland. The peasantry eat the red fruit, "eat one" is said to be the origin of the Latin specific name, as being enough. Turner, however, refers the name to the habit of only one berry being borne at a time. They are made into a wine in Corsica.

Ling (*Calluna vulgaris*).—This useful plant covers the ground on many mountains, supplying fodder for sheep, but less so for cattle. It is said their milk is tinged red by it. Highland dwellers make places are made with alternate layers of Ling and earth, and then thatched with it, as well as affording material for bedding. In the eighteenth century it was much used for tanning leather, as well as for yellow and orange dyes. Last year, brushes, brooms, baskets, &c., are made of the pliable shoots of Ling.

PRIMULACEÆ.

Cowslip (*Primula veris*) was called *Britannica* cusloppe in the tenth century, and used as a drug in the fourteenth; but now, perhaps rarely, for Cowslip wine. When well prepared it has been described as very intoxicating, resembling the sweet wines of Southern France.

Sowbread (*Cyclamen europæum*), so called because swine eat the roots greedily in Sicily and elsewhere in Southern Europe. The globular tuber is very acrid and dangerous to man, though pigs

re immune to it. The poison resides in an active principle called Cyclamine.

Poor Man's Weather-glass, or Pimpernel (*Anaallis arvensis*).—Strange to say, this little plant as borne the reputation of a cure for hydrophobia; though it seems to possess some acrid property, as birds have died from eating the leaves given to them instead of Chickweed.

(To be continued.)

NOTES ON HARDY PLANTS

SALVIA SCLAREA.

(CLARY.)

MANY are the virtues which have been ascribed to the Salvias or Sages, either as plants of healing or for the more prosaic purpose of flavouring articles of food or drink. One of the most emphatic and best known of the proverbs expressive of their value is that which was current in the old school of Salerno,

group of which is shown in the accompanying illustration. It is now mainly used for seasoning, though the flowers were, even in London's time, used for making wine.

Its value in the kitchen has practically relegated it to the kitchen or herb garden, but when in a group, as illustrated, it may be made serviceable for ornamenting the border or wild garden, though its biennial character lessens its value for wild gardening. It is a biennial in its habit, and should thus either be raised from seed or propagated by cuttings or slips. It grows about 2 feet high, has large wrinkled, hoary leaves 8 inches or 9 inches long, and rather viscid stems bearing racemes of pale blue flowers. Though fairly familiar to many, there are a great number who have never seen this old plant in growth.

The best time for sowing seeds is at the end of March or beginning of April in the open border, transplanting the seedlings to from 14 inches to 18 inches apart, or, if wanted principally for an ornamental group, about 12 inches apart. The plants will flower the following summer. Though there are some prettier Salvias, the Clary is an

Bravoa geminiflora comes from the mountains of Central Mexico, where it ascends to a height of 7,000 feet. It was introduced in 1838, and belongs to the natural order *Amaryllidæ*. The bulb should be planted about 2 inches deep.

HELIANTHUS DANIEL DEWAR.

AMONG the numerous species and varieties of perennial Sunflowers which we have available for our gardens in autumn, and which frequently supply so much good material for cut flowers, we ought not to omit *Helianthus Daniel Dewar*. It belongs to the type of *Helianthus* of similar habit to *H. rigidus*, and really appears to have been raised from that useful and free-growing species. Unhappily, it also shares its spreading habit, which makes it often so troublesome in a mixed border. It is, however, so pleasing in itself and so valuable when in a out state that it is worth giving some space to, particularly if it can have a corner to itself where it will not injure other flowers. It resembles *H. rigidus*, but has the great superiority of having more elegant flowers, seeing that when not too old they have sharply pointed and twisted petals. It is always much admired when in bloom with me, and is aptly called the Cactus Sunflower. It flowers earlier than *H. Miss Mellish*, and lasts for a long time in bloom. *H. Daniel Dewar* was raised at Rothesay by Mr. Michael Cuthbertson, and was named in honour of the late curator of the Glasgow Botanic Gardens. S. ARNOTT.

DRACOCEPHALUM PEREGRINUM.

THOUGH this plant is little known in private and nursery gardens it deserves, I think, to be more grown, and will eventually become popular among lovers of hardy flowers. It is valuable on account of the pleasing blue of the flowers, which are produced in pairs. It grows about 1 foot in height, is well suited for the rock garden or mixed border, and does not suffer in the least from heavy rains such as we have experienced this year. It has flowered for several weeks now, and plenty of flowers continue to appear, which clearly demonstrates its value in a season like the present, the majority of herbaceous plants having had anything but a favourable time. A good loamy soil appears to suit this Dragon's Head to perfection, and the flowers, which are produced with great freedom along the stems, make a good mass of colour, and one that is much appreciated. A. E. THATCHER.

CAMPANULA RHOMBOIDALIS IN THE ROCK GARDEN.

THIS is one of the most beautiful of the Campanulas. It is of medium height, about 2 feet high, and is of very erect habit. It thrives well in most soils, especially in a good loam on a sunny site in the rock garden or herbaceous border, is a perfect cloud of rich blue during July, and remaining a thing of beauty for some time. It is easily increased by division either in the autumn or spring, ripens a quantity of seed, and is also quite hardy.

THE ROCK GARDEN.

ROCK GARDEN-MAKING.

XIII.—SMALL ROCK BEDS ON FLAT GROUND.

AMONG owners of gardens there are, comparatively speaking, but few who would find it expedient to construct a rock garden on a scale as large as that illustrated in the previous chapter (see THE GARDEN of August 8). There are many, however, who, though possessing a garden of only small dimensions, are, nevertheless, desirous of adorning the same by some modest and simple arrangement of rocks and mountain plants. For such, a rock bed or two will often supply all that is needed, and these, besides being a great source of pleasure to their owner, may also be a great ornament to the garden generally. A rock bed of



A GROUP OF SALVIA SCLAREA. (From a photograph by Miss Willmott.)

and has been translated as follows: "How can a man die who grows Sage in his garden?" The precise species of which this is said is not easy to determine, for medicinal virtues have been ascribed to quite a number of the species, and the one which forms the subject of this note—*Salvia Sclarea*, introduced in 1562—has been freely used as a medicine, though nowadays it is of more service for the less important purposes of cookery, and it can hardly be said that a plant which ministers in this way to human enjoyment is not a valuable one. An old work in my possession—"Dictionarium Rusticum, Urbanicum et Botanicum"—(thus speaks of it: "Clary, when tender, is an herb not to be rejected in Sallets and in Omelets. 'Tis made up with cream, fried in Sweet Butter, and eaten with Sugar, Juice of Orange and Lemmon. This plant is raised of the Seed, and said to be good for the Eyes, as also for strengthening the back."

In these olden days there were several plants called by the name of Clary, and variously classed under the names of *Sclarea* or *Sclarea* and *Horminum*. More recently the name has become limited in its application to *Salvia Sclarea*, a good

interesting old plant, more worthy of cultivation than many frequently seen in gardens.

BRAVOA GEMINIFLORA.

AT this season, when so many lovers of flowers are purchasing bulbs for next season's bloom, it may be useful to draw attention to one of the most charming of summer-flowering bulbs—*Bravoa geminiflora*, the Twin Flower. Unfortunately, one cannot say that it is hardy except in a few favoured places in the south or in Ireland, but those who have their gardens in such districts may well experiment with the *Bravoa*, which is not very expensive; while others who may desire a little-seen plant may profitably give it the protection of a frame in winter and early spring. This can be removed in summer before the 2 feet or rather shorter stems reach their height and the flowers begin to open. They will be well repaid by the brilliant orange-red flowers, which come in, as a rule, in July. The flowers, which are tubular and drooping, are in pairs, whence the popular name, the perianth being nearly 1 inch long as a rule. The leaves are from 1 foot to 1½ feet long.

this kind is illustrated in the accompanying engraving. It was constructed a few years ago at the Manor House, Dawlish, the property of Miss Jackson. Although in this case the rock bed in question forms only the forerunner, so to speak, of larger and more elaborate work only a little way off, it is also at the same time complete in itself, and might serve the purpose of illustrating a small rock bed on flat level ground.

Seen from the particular point from which I took the photograph, the view is foreshortened and the bed appears long and narrow, while in reality its width and length are approximately equal. It will be observed that it has no clearly defined margin, but that the lawn and the plants in the bed amalgamate without any formal dividing line.

especially necessary in the case of narrow crevices destined to become the home of alpine plants. It will be seen that by using this method the depth of soil in the rock bed would vary very considerably; in the raised portions it would be 4 feet or more, while some of the low portions would have little more than 6 inches of soil in them.

In planting such a rock bed as the one described, care must of course be taken not to destroy its irregular character by unsuitable planting. As a general rule it will be found advisable to plant the highest and most prominent portions of such a bed with plants of a bold type, and clothing the low lying parts with the dwarfest kind of vegetation only. By this means the contrast is emphasised and the little rocks look more effective. A glance

nook has either its budding grace of spring or its swelling promise of summer's loveliness, and all over the ground old friends are thrusting themselves up in their remembered corners. Then a walk round the garden is a series of welcome surprises. Wherever you look there is something that "was not here yesterday." Besides, you are full of ambitions and ideas. There are all sorts of things in the glass house and the frames which will go into the garden later, and schemes of colour or arrangement of foliage for effect hover like a mirage before your eyes in every vista. With your eyes on the ground you do not even see half of the birds which pay your garden a flying visit, the songs which vibrate in the shrubs, the berries fall on your ear as a chorus only, a refrain to the song of spring in your own mind.

SUMMER'S LAST SET PIECE.

But in autumn you have had your say in the matter of horticulture. By no means have all of your colour schemes and foliage effects been realised, but in some respects you have done better than you expected, and as for your failures, summer's superfluous tide of flow rose above them and covered them before you had time to deplore them much. In September, before the early frosts have come, you walk the garden amid autumn's overwhelming blaze of colour, as if who is looking on at the last "piece" of the year's fireworks. It is magnificent, but it will soon be over, and after that—the winter. Then you instinctively turn with sympathy to the robin, who almost comes to meet you as you enter the particular section of the garden which he has constituted his domain and greet you, as it seems, with a song of grateful welcome. To a certain extent you are making the same mistake which you made in spring. Then you interpreted the multitudinous song of the birds as a chorus to your own thoughts of coming

joys, whereas each song-thrush and blackbird was really shouting defiance to its neighbour over the way. So now, when you feel that summer is slipping away from you, and you are glad to hear a cheery voice, you accept the robin's welcome of himself to your premises as an appropriate compliment of the season. Yet all the while the tawny-cheeked rascal is only shouting defiance to every other robin—including her who was his wife until a few weeks ago—within hearing.

THE FAMILIAR ROBIN.

Yet there is just a little of something else in the robin's mind as he deliberately sings at you from the branch where he has taken up his position full in view and close at hand. He could have defied his neighbours just as effectively from any other tree; and the fact that he comes near to you and accompanies your progress through his domain, also that he always perches near the gardener when the latter is digging, shows that the robin's acquaintance with man has been long-lasting enough to stamp an ancestral instinct of friendship and familiarity upon his mind. Judging by the permanence of many obsolete instincts in the world of animals (not excluding man) this must mean that our ancestors have known the robin's ancestors for a very long time indeed. There is, therefore, some reason after all why we should accept the robin's



ROCK GARDEN AT MANOR HOUSE, DAWLISH (THE RESIDENCE OF MISS JACKSON).

Plants of all kinds cover the bottoms of the stones, which being thus partly hidden from view convey the idea of being the tops of really large rocks receding below the surface of the ground. It is surprising how fine an effect can be easily produced by stones cropping in this apparently natural way through a plant-covered surface. Such a bed would not even look out of place on perfectly flat ground, provided its surroundings are also kept irregular.

DETAILS OF CONSTRUCTION.

As the rock bed is rather low on the whole it was necessary to prepare the ground at some depth below the surface. The ordinary method of trenching would be useless in this case, as the soil would afterwards settle too much; as there would thus be a danger of stones and plants becoming dislodged, greatly to their disadvantage, instead of trenching excavation was resorted to, and the soil of the whole bed was removed to a depth of about 2 feet. Since it is a mistake to build rocks on the top of loose soil, the building was commenced on the solid ground after excavation. The height of the rock bed varied from 2 feet or 3 feet above the original surface to a foot or 18 inches below it. Where, therefore, the rocks would be buried inferior stones were used, but were so placed that, while forming a solid foundation for the rocks above them, there would be between them narrow crevices filled with soil for alpine plants. The best of the earth previously removed was mixed with small broken stones and a little leaf-mould, and was then put back between the stones and firmly rammed. This ramming is

at the picture will reveal that this principle was practised in the bed here illustrated. Here the most prominent parts were adorned with *Linaria dalmatica*, *Yucca recurva*, and *Armeria Cephalotes*, while the lowest parts in the central part of the bed (not visible in the picture) were clothed with a carpet of *Hernieria glabra*, *Veronica rupestris*, *Pratia angulata*, *Gentiana verna*, *G. acaulis*, and other very dwarf plants. In the foreground on the right may be seen a group of *Edelweiss* cropping up between half-hidden stones.

Among other plants used for this rock bed were *Acantholimon glumaceum*, *Dianthus alpinus*, *D. neglectus*, *Morisia hypogaea*, *Ramondia pyrenaica*, *Saxifraga longifolia*, *S. oppositifolia*, *S. burseriana*, &c.

In making rocky beds of this kind the great aim should be simplicity, and above all natural appearance. When well carried out small beds such as the one described may often be more pleasing in their effect than much more elaborate structures.

Elmside, Epseter.

F. W. MEYER.

(To be continued.)

ROUND ABOUT A GARDEN.

AUTUMN AND SPRING.

DURING the first half of October the bird life of a garden in the country is almost more interesting than at any other time. In the spring we can spare them less attention, because the plants are moving so fast. Every

October song as in some sort a greeting; at any rate, it is something which lasts for us through the centuries which see so much of change.

TOO FAMILIAR DOVES.

But the robin is by no means the only bird which enlivens the garden now. While sitting on my cap one morning in the hall I looked through the glass door and saw one of the Barbary doves on the bird-table. These doves might be called hardy exotics for the old garden. Even on the bleak Norfolk coast they thrive out of doors at all seasons, and multiply amazingly. They become curiously tame, too, with a little encouragement, and for a stranger coming into the garden it is rather embarrassing to hear a sudden whirr of wings and find that he has a dove on his head. The first thing that you usually have to do on entering a neighbour's garden is to take off your hat to somebody, and it becomes quite a complicated operation when you have to take off a dove too, especially when the bird resents the proceeding and pecks your fingers or buffets your head with its wing. But you need not discourage your doves to be tamer than you are, and the readiness with which they go to a free life makes them very pleasant additions to a garden in which there are stable evergreens for nesting-trees. Budgerigars thrive and multiply out of doors too, but they do not seem to have sufficient sense to evade cats, while parrots, though they are hardy and happy at large, fly too far and offer so gorgeous a temptation to the casual wanderer to be safely acclimatised anywhere but in a large estate.

EXOTIC GARDEN BIRDS.

We have not yet, however, reached the time—though it is coming, no doubt—when part of the recognised charms of a garden will be the exotic birds which have made their homes there, and meanwhile we can do well enough with our British kinds. While the Barbary dove was sitting on the bird-table a thrush suddenly popped on to it, and it was amusing to see the way in which the dove pretended that he had not been startled. Encouraged by the thrush's presence, the verandah robin dropped down to the table from the Honeysuckle overhead, and the dove departed, as much as to say, "This place is becoming too common for me." After the robin came a blue tit, and, seeing that the bird-table was in fair working order, I sallied forth.

TRESPASSING ON YOUR OWN GROUND.

My appearance was the signal for an exodus of starlings from the lawn and for a missel thrush to "churr" excitedly from the Poplar opposite, because he regards the near shrubbery as his winter domain and objects to human beings entering it. He objects even more strongly to song thrushes and blackbirds, but these birds are so elusive that he never knows how many of them are lurking in the evergreens, though as you pass through the "chuck-chuck-chuck" of the startled thrush on one side and the "chak-chak-chok-chok-chok" of the agitated blackbird on the other must inform him what an ineffective blockade he has established. These birds have all adopted their solitary bachelor or grass widow lives for the winter, as has the great tit, who scolds at you from the Larches in a slightly louder tone and hoarser key than that of the blue tit, but otherwise using the same notes with the same pretence of menace. The shrubby robin chitters in expostulation at the disturbance which you are creating, and

you cannot help walking stealthily, like a trespasser, since the birds resent your presence in your own shrubbery so much. But by so doing you gain much, for you catch pretty glimpses of small wild life at every turn.

E. K. R.

TREES AND SHRUBS.

THE LARGER BROOMS.

THERE is a considerable difference in the size attained by the various members of the Broom family, for whereas the white Spanish or Portuguese Broom (*Cytisus albus*), herein figured, will reach a height of 7 feet or 8 feet, some of the species are quite procumbent, being, in fact, ideal plants for the rockwork. Taking the larger Brooms in their order of flowering, the first to unfold its blossoms is

CYTISUS PRÆCOX, known popularly as the Sulphur Broom. This is a hybrid between *C. albus* and the more uncommon *C. purgans*. It is a native of Central Europe, and seldom seen in cultivation. *C. præcox* is in every way a delightful shrub, denser in growth than the white Spanish Broom, though quite as free. In the early days of May a thriving example of this Broom will be quite a

after a time—at least, under certain conditions—it becomes leggy and worn out, in which case the only thing to do is to plant young ones to take their place, for cutting back these old plants is never a success.

C. SCOPARIUS (the common Broom of the British Isles) is not only one of the most beautiful of the genus, but it has also given rise to two or three very striking varieties. It is essentially a plant for gravelly soils, and on open commons it often forms a gorgeous feature when in bloom. The fact that it is hardy in many parts of the country must not be allowed to militate against employing it for ornamental purposes in the garden, particularly where it is not common in a wild state. The variety that has attracted by far the larger share of attention of late years is *andreas*, which was discovered in Normandy by M. E. André. It differs from the type in the wings being of a rich brownish crimson, which feature causes it to stand out conspicuous among all the Brooms. This variety after its discovery soon became generally cultivated, but the usual method of increase—at least in its early days—was to graft it on to young seedling stocks of the *Laburnum*. Plants so obtained had an unpleasant trait of dying off suddenly without any apparent reason, but for all this the grafting still goes on. Seed ripens freely and plants can be readily obtained in this way, but as a rule a large percentage of the seedlings revert to the normal golden-flowered form. Cuttings, too,



GROUP OF THE WHITE SPANISH BROOM (*CYTISUS ALBUS*).

(From a photograph kindly sent by Mrs. Frank Garnett, Adsett Court, Westbury-on-Trym, Gloucester.)

mass of sulphur-coloured flowers. It seeds freely, but the plants cannot be depended upon to come true when raised in this way, hence it is often propagated by cuttings, which strike root more readily than many others.

C. ALBUS comes as a succession to the species just named, and for a fortnight or so it is one of the most conspicuous shrubs that we have. It is easily raised from seeds, which germinate readily, and the young plants so obtained increase quickly in size. As they grow up, however, they transplant badly, hence this Broom must be permanently planted when young, or in some instances the seed may be sown where the plants are to remain. One feature of the white Broom is that

do not strike readily, though a few are obtained in this manner.

C. S. PALLIDUS (Moonlight Broom) is an old, still uncommon, but very beautiful form, in which the flowers are of a pale whitish yellow, well expressed by the word "moonlight." Besides these two varieties there is a creeping form, which is a good rock plant. Though often grafted standard high it has at best an artificial appearance so treated.

C. NIGRICANS can hardly be regarded as one of the larger Brooms, for its usual height is 3 feet to 4 feet, but it is so beautiful that it must not be passed over. This forms a rather upright shrub with slender branches clothed with trifoliate leaves, and terminated by numerous spikes of



GLADIOLUS SAUNDERSI HYBRID.

bright yellow flowers, of which a succession is kept up from July till the autumn. It must certainly be included in any list of choice flowering shrubs.

One great merit of the different members of the Broom family, and indeed many of their allies, is that they will thrive even in dry, gravelly, and sandy soils where many other shrubs would soon perish. This is, to a great extent, owing to the deep descending nature of their roots, as by these they obtain nourishment, which is beyond the reach of more surface-rooting subjects. This is the principal reason that they do not transplant well, as there are scarcely any fibrous roots, and in lifting the main ones are almost sure to be more or less injured. H. P.

COTONEASTER FRIGIDA.

As a rule, this Himalayan species can be depended upon to flower and fruit freely every year, and as at both periods it is ornamental it makes a very desirable shrub for the shrubbery or pleasure grounds. It was first introduced in 1824, and in some places very large specimens are to be found. In habit it makes a large, shapely bush, with strong-growing branches, shoots 4 feet or 5 feet in length being made in a single season. The leaves are elliptical, 4 inches to 6 inches long, and 1½ inches wide, and are woolly beneath, especially when young. The flowers are in large corymbs and are white, the flowering period being late spring. The bright red fruits set freely, and are ripe about September. In mild weather they hang until winter, but in severe weather birds clear them off quickly. At Carclew, near Falmouth, the residence of Colonel Tremayne, a very fine specimen may be seen. About the middle of September it was smothered with fruits. The plant is about 25 feet high and 40 feet through, of perfect shape, clothed with branches from base to

summit. It would have been larger, but has had to be hard pruned from want of space. For a shrubbery of strong-growing plants it is excellent, while as an isolated specimen it is also valuable. It is increased readily by means of seeds, and young plants come into bearing when about five years old. W. D.

THE FLOWER GARDEN.

THE GLADIOLUS.

CONSISTING of nearly 140 species, the genus *Gladiolus* is a large one, but of these a considerable number are of small garden worth—at any rate, compared with the magnificent hybrids associated with the names of Suchet, Lemoine, and Max Leichtlin on the Continent and Kelway and Burrell in our own country. It is of these latter I propose to give my cultural experience, but, before proceeding to details, I think it is advisable to touch on a section of early-flowering *Gladioli* which are largely cultivated on the Continent and deserve much more attention by us than they seem to get.

I refer to the varieties and hybrids of *G. blandus*, *G. ramosus*, and *G. cardinalis*, fitly associated together, as they may be planted in the autumn, flower in May and June, and can be lifted in August, when, after sorting, they may be replanted later in November. The *blandus* (nanus) varieties are the dwarfest, averaging from 1 foot to 2 feet, and flower in May in the open ground; *ramosus* and *cardinalis* varieties average 2 feet to 3 feet and over, and flower in June and July. Nearly all the named varieties listed in the Dutch and French catalogues are worth growing, and some are of great beauty, lasting well when cut, for, though the pips on some spikes are not very numerous and of somewhat fugitive duration, they open in quick succession.

A deep, rich, well-drained soil and sunny site suit them; the chief protection they seem to require is from excessive wet in the autumn and winter, and from winds and pelting rains when the spikes appear. Without this protection, unfortunately, the usual sequence of climatic events in this country goes against them, and mild autumn and winter rains induce premature top-growth, which, though capable of enduring a good deal of dry cold at that season resents exceedingly the succession of freezing and thawing which generally occurs with us. They are charming in pots if plunged outside in coal ashes and kept fairly dry till the end of February, when they may be allowed to come on gradually in a sunny corner of the greenhouse. Place from three to six corms in a 5-inch or 6-inch pot, with good fibrous loam and coarse grit and very free drainage. The water-can needs restraint till growth indoors is active, and then a pinch of a good fertiliser in the pot is a great help. After flowering plant them out in a warm corner to complete growth and ripen. The following is a selection of charming varieties:

BLANDUS SECTION.—Blushing Bride, white and crimson; Carnot, scarlet; Eulalia, rose; L'Unique, orange; Peach Blossom, pink; Salmon Queen; and Sydonic, rose.

RAMOSUS VARIETIES are not so numerous, but Amsterdam and Queen Victoria, red and white flaked; Van Speyk, salmon-pink; and formosissimus, scarlet and white, are good. *G. cardinalis* and *G. insignis* are also brilliant reds and very showy, flowering with the above. Next in order of flowering are

LEMOINE'S HYBRIDS, originating from a cross between *G. purpureo-auratus* and *G. gandavensis*. This resulted in the introduction of Lemoinei and Marie Lemoine, two varieties which, though thought much of then, are nowhere now. The small hooded type of flower and the harsh contrasts of colour are giving way to varieties with stronger spikes, large well-opened flowers, and colours of beautiful harmony and softness, extending from white to the deepest maroon, and including several forms also of violet-blue shades. In the production of these the consistency of hybridising appears to be being adhered to; in fact, I believe that in a few years' time there will be no clearly defined types representative of the various sections of *Gladioli* classed under the names of Lemoinei, Saundersi and *gandavensis*. The only important differences will be habit and time of flowering.

However, at present the Lemoinei hybrids are distinct enough in many cases by flowering earlier (July), in having more slender peduncles, and flowers from 1 inch to 3 inches across, with the basal segment or segments usually blotched or spotted with a colour different to that of the ground colour. Their culture is identical with that of the next two sections. I have not found them appreciably hardier or any advantage in autumn planting. Some of the varieties are positively ugly by reason of the harsh contrasts of colour. The hooded flower is also to my mind highly objectionable. The following varieties are, however, very pretty: Venus of Milo, white, purple spot; Prince Altieri, white, crimson blotch; Gil Blas, salmon.



GLADIOLUS GANDAVENSIS.

large blood-red blotches; Devil de Carnot, crimson; Lacordaire, fiery red; M. Lereque, crimson, pencilled yellow; Eldorado, yellow, dark blotch.

The varieties of garden Gladioli included under the names of

SAUNDERSI, NANCEIANUS, AND CHILDSI

are, or were, originally hybrids between *G. Saundersi* (species) and varieties of *Lemoinei* and *gandavensis*. This cross resulted in a type of plant having very large open flowers, too large often for the peduncle, which partook of the character of *G. Saundersi* in being rather weak. Personally I do not think the majority of varieties of this section are any improvement in themselves on those of *gandavensis* forms, the flowers being very often loose and flimsy in petal and just as ugly in form as the hooded type of *Lemoinei*. The colours also, in quite a number of varieties listed in catalogues, are not pleasing, and, what is an important character from a decorative point of view, there is not usually an orderly sequence of development of the flowers up the spike. Two or three gigantic flowers at the base will open and wither before those above develop, and these are very much smaller, out of all proportion in fact. Nevertheless, the introduction of this section will, and already is, leading to grand results. Careful and judicious crossing between the sturdy varieties of *gandavensis*, with their thick-set spikes, and good coloured varieties of *Saundersi* is resulting in Gladioli of splendid type, with the faults on both sides of the parents nicely corrected.

A few good varieties are Abbé Roucourt, deep crimson; A. R. Smith, carmine and yellow; Ferdinand Kegeljahn, orange and salmon; Pacha, orange. And under the Childsi group are Kitty Leyland, very large rich pink; Mrs. Bird, rose; Ben Hur, a very large flowered but dwarf variety, with a much dotted and pencilled pink flower. A number of the Childsi varieties are, in my opinion, very much overrated.

Coming now to the best known, the most cultivated, and still the most useful, as well as the finest section, the varieties of

G. gandavensis, we may as well refer to its origin, or what is said to have been its origin, viz., a cross between *G. cardinalis* and *G. psittacinus*, though I believe there is no doubt that *G. oppositifolius* is accountable for the origin of the light ground varieties, the whites and purples. Anyway, the best types of *G. gandavensis* are magnificent garden flowers. Every colour except clear blue has been attained, and the most fastidious sentimentalist may be satisfied with the perfection of form and bearing of their massive spikes, whether as seen in the open garden or when cut for the decoration of the house. Their cultural requirements are not exacting. There are certain conditions under which they will not thrive, but these are few; they cannot endure shade of any kind, and prolonged drought induces abortion of their spikes and premature ripening, hence they rarely succeed in dry, shallow soils. Organic manures should be kept away from their corms. On the other hand, if an open site is obtainable, I believe Gladioli can be successfully grown in any soil, provided it is (1) deeply worked 2 feet at the

least, (2) made firm before planting, (3) and an abundant supply of phosphatic fertiliser be afforded. The two first considerations are best effected by autumn trenching, or at least bastard trenching. The soil then settles down naturally during the winter. As to the third, basic slag, along with a good dressing of stable manure dug into the second spit, is, perhaps, best for stiff loams, clays, and genuine peaty soils. On lighter soils steamed bone flour is preferable. In both cases let the application be liberal the first time, say 1lb. for every 3 square yards. For really sandy soils superphosphate of lime 3lb., along with sulphate of potash 1lb., for every 3 square yards raked into the topsoil about a month before planting gives markedly good results. A regular dressing of slaked lime over the beds during the winter at the rate of a bushel to the rod the first time, and half this quantity each succeeding winter is nearly always of great value. Gladioli especially seem to appreciate it, moreover it is worth noting that superphosphate has been found by experiment to fail in the absence of

which is due to their fancied resemblance the genus *Crocus*, which belongs to the family, whereas *Colchicum* belongs to Lily order, and must not be confounded with the true autumn-flowering *Crocus*, of which there are now so many beautiful ones. Owing to their habit of flowering when leafy *Colchicums* look best when planted in grass, and there are few more pleasing sights the garden or woodland during the winter months of the year than a patch of them.

They are also extremely useful for help to brighten the herbaceous borders when other plants are fast passing their best, while choicer sorts are fit for the rockery. *Colchicums* are not particular as to soil, provided it is fairly rich and has a tendency to conserve the moisture, as when planted on very light soils the foliage is apt to become burnt by sun if the summer be at all dry, causing premature ripening and, as a consequence, weakening of the bulbs. Planting should always be completed before the middle of August, as root action commences about



COLCHICUM AUTUMNALE IN THE PHYSIC GARDENS AT CHELSEA.

a sufficiency of basic lime compounds in the soil. Twice during the growing season I give my beds a sprinkle of nitrate of soda, 1lb. to each 10 square yards, the first time in May and again in the first week in July, the results this rainy season have been most marked, some untreated beds being far behind the nitrated beds in vigour. If the above procedure as to chemical fertilisers seems complicated, then try a combined manure (after trenching and manuring in the ordinary way) such as Clay's. Use as a top-dressing 28lb. to the rod after planting, and again in June, raking it well in between the rows.

Thanet.

W. C. BULL.

(To be continued.)

MEADOW SAFFRONS AT CHELSEA.

THE members of the genus *Colchicum* are, with very few exceptions, autumn-flowering bulbs, particularly called "autumn-flowering Crocuses,"

that time, and it is important for the health of the bulbs to preserve these early rockers. *C. autumnale* is found wild in some parts of England. It contains a poisonous alkaloid called Colchicine, which is used in medicine, and on this account must not be planted where cattle can eat it, as it may prove dangerous.

Physic Gardens, Chelsea.

W. HALES

TYING.

HAPPY of old in their gardens were the fabrace of the Hyperboreans who lived in perpetual calm, beyond the sources of northern storm, and happy were the dwellers in the sheltered vales round Athens, where—so says the native poet—the bright golden *Crocus* and the Daffodil with its fair clusters flowered winter untouched by any gale. It is in fashion to denounce tying, and to say that flowers look best in the posture in which Nature places them, but let these critics try

season in Edge Hall Garden, into which winds contrive to twist themselves, from whatever point of the compass they blow. Add to this the wetness of the subsoil, which makes the plants grow tall and deficient in backbone, so that they not only get blown sideways but turn over until their heads touch the ground behind them like acrobats. If these flowers are to be kept visible tying them becomes a necessity.

But few gardening operations require more study and practice than tying. The tying apparatus at Edge Hall forms a very important part of the gardening stock. It consists chiefly of several tons of iron rods, not made for plant stakes, or they would cost four or five times as much as they do, but plain round iron bars, varying in size from a quarter of an inch to five-eighths of an inch in diameter, and cut obliquely, so as to form a sort of blunt point, into lengths of from 2 feet to 6 feet. These cost about 10s. per hundredweight, and last for ever; they are generally painted green. The prunings of Apple trees are useful for tying small plants such as double Daffodils. Westerly gales sometimes twist Daffodils off at the ground line by dozens, so in exposed places choice Daffodil flowers like King Alfred and Weardale Perfection have to be tied. Small branching sticks of Hazel, such as the tops of Pea rods, are useful for things with slender stems, like single and double florists' Pyrethrums. These should be inserted whilst the growing stalks are still short, and their height should be less than that of the plant at flowering. Raffia is a better tying material than string for small plants, but for larger stalks soft sacking twine, costing 5d. per lb. is used, or for some of the largest and most top-heavy, like the tallest perennial Sunflowers or the double Rudbeckia laciniata, tarred thatching cord is required.

No one would wish to tie up a stalk which was likely to support itself without it, so discretion founded on experience must be used. For instance, there is a black-stalked late-flowering Sunflower, said to be a variety of *Helianthus tuberosus*, which grows 6 feet high, with a spreading forest of stalks, and will resist a whole gale. Plants of this nature are few, but they are carefully noted and cherished. One or two of the tallest species of *Cimicifuga* are equally wind proof. In the year 1896 the writer tried how far he could do without tying up, and a decree went out that nothing was to be tied without his special orders. July was fine and calm and gave encouragement to the experiment, then came a wet August, followed by a September of gales. The tallest of the untied plants were twisted off at the ground level first, then followed such a general destruction that it was resolved never again to trust to the tender mercies of *Æolus*.

To descend to particulars about the using of the iron rods: Delphiniums, tall Phloxes, Michaelmas Daises, and such like stalks ought to have a loose tie before they are 2 feet high to prevent the stems getting bent when young, in which case it is very difficult ever to get them straight again; this is merely a preliminary precaution. If there are many stalks, at least three or four rods should be used to each plant. It is better not to fix the rods quite upright, but they should lean a little outwards, as it is not well for the stalks to present a stiff row like a company of soldiers on parade; nor is it wise generally to make a sort of cradle of the rods, and place the stalks loose inside, or they tumble about from side to side according to the wind. A portion of them should be made fast to each rod, and room enough should be given for every side of each panicle of flowers to expand. The tops of the rods ought

not to project above the flowers. Thin Bamboo Canes have lately become very cheap and are much used for supporting plants in borders. They do not hold up nearly so much weight nor offer so much resistance to wind as iron rods, and unless the tie is made just above a joint it slips. They are also less durable than metal, and are less easy to fix in the ground. For making holes for that purpose a short bar of iron an inch in diameter, sharpened at one end and at the other turned round into a handle will be found useful.

The habit of leaving plants to be tied until they are in bloom and sprawling on the ground, and then collecting all the stalks together and tying them flowers inwards like a besom head, as is done in some gardens, is enough to discredit the whole practice. Tying must not be deferred but the need for it must be anticipated, and it must be done leisurely to be done well. There is no operation in gardening of which the proverbial verse of the old Greek poet, the author of "Works and Days," is more true—"The man who puts off work till to-morrow is for ever struggling with calamities," so do not wait until the barometer jumps down half an inch in a night and we are told that the warning cone has been hoisted in all districts. Gales are sure to come sooner or later—

"tu nisi ventis
Debes ludibrium, cave."

A little forethought might have prevented the wreckage of choice ornaments which "all the King's horses and all the Queen's men cannot set up again."

Edge Hall, Malpas. C. WOLLEY DOD.

GARDENS OF JAMAICA.

(Continued from page 72.)

THE LACE BARK.

THIS is not a tree that would attract particular attention. Its form is very ordinary as well as its foliage. But the bark in which the trunk and limbs are encased is of a very peculiar and beautiful kind. When stripped from the tree it looks white and regular, but in no respect different from that of the Trumpet tree and others which produce an excellent bark for making ropes. If this is soaked for a short time in water the thin layers are easily separated. When these layers are drawn out with the fingers the fibres part one from the other, and the appearance is that of a very fine kind of net lace. It is astonishing how large a piece of vegetable lace may be drawn out of a small piece of bark, and how great is its strength. Some of the most beautiful ornaments and bags are made from it, and are greatly valued.

This leads us to observe a fine plant that grows in the hedges, which is commonly called

THE DAGGER PLANT.

It is so named on account of the sharp, dagger-like points of the long leaves which grow from the tall stem. The plant varies from 3 feet to 4 feet in height, and these long dark green leaves radiate from the stem on every side. But the peculiarity of this plant is the quality of the fibre of which the leaves are composed. These, when carefully peeled off, are of the most delicate softness and exquisitely fine; it resembles more the Chinese rice paper than anything that may be mentioned, though superior to it in the delicacy of its colour and the extreme closeness of its formation. Pieces are obtained about 3 inches or 4 inches square, but these are hardly capable of being used for the purpose of writing. Drawings and paintings are often executed on them, and in softness and beauty they exceed the miniatures that are drawn on ivory. There seems to be no substance so admirably suited for flower painting.

THE BAMBOO

is one of the most attractive and beautiful trees to be found in any part of the world. In every part

it is met with, and is made to serve in that which is ornamental as well as useful.

It is astonishing with what rapidity the shoots multiply from a young Bamboo plant. When looking at the elegant young reeds that are grouped together one could hardly imagine that they would by and by form such a magnificent and immense group of trees. The difference is simply in size and not in character. The small Bamboo, in the curious way in which it is jointed, in the nature of its growth, and in the appearance of its foliage is the miniature of the groups which are seen on hill and dale, in the plains, and in the woods.

The root of the Bamboo is a curiosity in itself. It is gnarled and knotted with rings and curves in the most fantastic variety. From this young shoots are continually springing up, so that, even when many are cut down, there is an abundant supply to replace them. But in process of time these huge canes so cluster together that it is impossible to count them. These monster reeds grow sometimes to the height of a large Oak. They gradually taper off from the root upwards, until they terminate in a fine point. From the upper parts small lateral Bamboos are thrown out, the whole being clothed with extremely delicate and long thin leaves. So light is the foliage that, however still the air may be, there is always motion among the Bamboo leaves. The size of some of the Bamboos is very great. The lower part of some may be a foot or more in diameter, and, being quite hollow between the joints, a vessel of considerable size may be formed from one of them, carrying water or any other liquid.

The smaller Bamboos are used for rafters and railings, but they are more valuable for the manufacture of a large kind of open basket, which is in general use throughout the country. They are often planted for hedges, and, when of moderate size, afford a useful protection and a grateful shade. But they are seen to most advantage in the large, park-like commons which are found on some estates, especially when they are planted beside a piece of water. But take a fine cluster of Bamboos as they stand, and we shall ne'er find their like again.

One of the rarest trees to be met with in the island is the

MAMMEE-SAPOTA.

It is about the size of a large Pear tree, with a bright green leaf not unlike that of the Horse Chestnut. But the fruit which it produces is its great peculiarity, as it is much esteemed on account of its rarity and quality. It is almost the size of a very large Pear. The skin is of a dull brown colour. On cutting it when ripe the fruit is found to consist of a pulp of a bright orange colour. The flavour of this would hardly be liked by those who were not accustomed to it. The seed is very remarkable; it is somewhat oval in form, and of a dark-brown colour. There is a slip down one side of a lighter colour which is easily cut, and in this way they may be formed into pretty pincushions or small boxes. They are capable of taking a high polish, and the fruit being uncommon the seed is accounted as a great curiosity.

THE BREAD NUT

is in many respects like our English Beech tree. Its leaves are larger, and of a darker colour, but of the same form. It strikes out its branches in the same lateral manner, and produces a Nut not unlike our Beech Nuts. The wood of this tree is of no particular value, but the leaves form a most admirable food for horses and cattle. In seasons where there is a scanty supply of grass the Bread Nut is a capital substitute, and contains at least as much that is nutritious. But there are other woods of great value for building and cabinet-work. Of these we may speak of

THE EBONY.

Few woods are so much esteemed as this. Were it not for the difficulty of getting large pieces of this tree it would probably be more used for large cabinet-work than it is. But the trees are for the most part stunted in growth. They are found among rocks and inaccessible places. The trunk, moreover, is generally crooked, so that there is a difficulty in obtaining straight pieces to

work up for furniture of any size. We are all familiar with the wood. The tree would not attract much attention. There are two kinds, the black and the green Ebony. Of these the latter is the most common, and therefore the least valued. The price of it, however, even on the spot, is great, so that a wood with plenty of Ebony trees is of considerable worth.

THE MAHOGANY

is one of our most familiar woods. A great deal of it is produced in Jamaica, but the largest supply is obtained from Honduras. This tree grows to a great size. A good tree will, like the Oak, have a fine and well-formed trunk. The branches are, however, straggling, and the foliage thin. The leaves are small and pale, but the interest connected with this part of the tree is increased by the curious seed-sepals which are found on it. These are about the size and shape of a very large Pear. The outer rind forms three compartments. These, when the pod is ripe, divide at the lower extremity, and have within three corresponding seeds of a dark brown colour. The pod itself has a bark-like appearance. They are curious, but it does not appear that the tree is propagated by these means.

THE CEDAR

is another tree which produces a wood of great value. In the parish of Manchester they grow to an enormous size, and some of their trunks almost rival those of the Cotton Trees. This tree must be carefully distinguished from that known in England as the Cedar of Lebanon. They have no resemblance one to the other. The form of the trunk and the branches, the appearance and colour of the foliage are altogether different. This will at once be evident when we say that the appearance of the Jamaica Cedar is not unlike that of the Horse Chestnut, if we only bear in mind that its bulk is greater. The blocks of wood cut from the trunk are so large that the boards made from them are sometimes of unusual size, and the wood, from its quality and grain, is considered to be very little inferior to Mahogany. In some parts where it is most common it is occasionally cut into shingles, which are used for roofing houses in the same way as slates are employed in England, but it is only inferior wood that would be thus used.

(To be continued.)

THE AUTUMN GARDEN.

CORNERS.

ONE of the advantages of being really keen on gardening is that it makes one accept the vicissitudes of seasons with so much complacency. The quiet time, the pause, that comes in October and November is even welcome. Those who have had to spend winters and summers in the tropics know what it is *not* to have seasons, and envy us the repose that autumn brings. Repose, for the plants and flowers I mean; for the gardener, there is work; more

to do sometimes than the short months give time for, and it is work that makes the autumn garden so cheerful.

We generally shut our eyes to the waning glories of our gardens as long as we can, not wishing to interfere with or hurry matters, but October rouses us from our summer trance, and we begin by taking up our bedders. This is a pleasant task. Like all gardeners, we are sure to have been living with half our minds in the future (it is the only way), and now we are going to realise. Imagination is one of the gardener's greatest comforts: with the eye of faith he already sees his beds and borders as they are going to be, and is happy in the prospect, but they give us much to enjoy even in the present. After they have been dug up, and are left to settle down, what is more restful than the comfortable look they wear, or more pleasing than the colour of the rich brown wholesome earth as it lies against a background of vivid reds, soft yellows, and shaded greens. There is even a fanciful pleasure in

stumps to do wonders with by and by, there will be boughs to make into pergolas, or use for Hop poles, and even to make edgings for herbaceous borders, where they look very natural and pretty, never more so than when Tufted Pansies are tumbling over them, a shower of blue and gold, or even wild Strawberry-runners, the Californian Nemophila, or sometimes the pretty grey green Artemisia, that is really Worm-wood, and used in France for making absinthe.

In our garden felling trees was last year's work, as doubtless it was in many another, but this season attention is going to be paid to the odd corners. No gardens are without these, some of them not very pretty to look at, but one cannot do altogether without poke-away places; the only thing is to allow as few of them as possible, and deliver the rest from bondage whenever practicable. This particular work might not have occurred to us this season had it not been for a happy accident of last year, when a delightful "odd corner" came of its own accord. There it stands in the sunshine, brightening the autumn garden, at once an example and an encouragement to us to make another. We neither planned nor fashioned it, all we did was to help it on a little at the last.

The corner came, of course, because of the cutting down of the trees; that began it. The King of Spades went on with it when he threw a lot of logs, as a temporary measure, on the top of some old Gooseberry bushes, in a place where before it had always been too shady even for Gooseberries to grow properly. The loosened sunbeams fell gladly over the piled up logs that had grouped themselves in the happy

A CORNER IN THE AUTUMN GARDEN.

watching the fork as it plays among the Geranium beds, lifting gently the Olive Carrs, the Queen of Whites, and the little tufted Dandys that smell so sweetly as they are handled. How terrible it would be if bedders rooted themselves like weeds, sticking to their guns with fiendish obstinacy! So far from that, they come up with amusing readiness, evidently acquiescing in the arrangements they and their families have been accustomed to for so many generations. One might imagine they find it a relief to give up the struggle to look beautiful, too long protracted, as sometimes happens to other faded fair ones.

The bedders gone and the early spring flowers launched on their winter campaign (how will they weather it?) bigger things claim attention. One season there will be trees to fell, a halcyon time in many ways, especially if Oaks are cut. Wood of Oak is such a treasure-trove in gardens. Besides the fun of the bonfires and the chopping of house-fuel, and the choosing of gnarled roots and

careless fashion that comes of not trying, and there, without another touch, the thing was done. No words were wanted, there was no occasion for the gardening parliament to meet, for there was nothing to discuss. The corner was beautiful already; all that was wanted were some barrow-loads of earth and a little planting. Not much of this; anything grand would have been out of place. Spaces were filled with the common flowers, that would have come up of themselves if we had given them time, the dear weeds that do not so much belong to the garden, as the garden belongs to them—Creeping Jenny, Gold-dust, Sailor's-blanket, Saxifrages of different sorts, Candytuft, Lungwort, Pansy, Alkanet, Fox-gloves—a tangle of the homely friendly flowers, that are so comforting because they furnish the places that would otherwise be bare.

In making improvements and alterations sometimes happens that it becomes desirable to raise walls and fences between our own and our neighbour's property. This may be



awkward. I have known frail fences to sever friendships. Here the otherwise detestable wire netting may come in useful; it answers very well to begin with, being so transparent it is hardly noticeable. Other and better boundaries can be substituted as time goes on and creepers grow, but no one need expect Ivy to grow on netting; it simply will not, and always runs away from it, annoyance and disappointment expressed by every twig and leaf.

Our new corner faces south-east and is very sunny, so that the scattering of summer seeds resulted in much sweetness after the spring flowers faded. Dwarf Sweet Alyssum and Virginia Stock were very happy together, and as decorative as the hundreds and thousands on a tipsy cake, which, when mingled, they greatly resemble.

Now that most of the annuals have faded it is well for us that we had the presence of mind (owing to living in the future) to place some autumn-flowering plants among the rest. In spite of an out-of-the-way position the corner has become a favoured nook, partly because it is so warm and dry and sheltered, a sort of focus for sunbeams. If any of the family are lost it is easy to know where to look for them; they are sure to have put themselves "in the corner" on the logs behind the Hop poles, and there could not be a pleasanter place in which to linger, as the silver misty mornings melt into mellow noons.

There is plenty of scent here, for the Alyssum has seeded itself, and is in bloom a second time, and we are not too far off the flower border to get a whiff from the late Roses and vigorous Verbena, and there is no lack of pleasant sounds. The dropping Acorns gently startle us as they slip through the branches with a quick rustle and then a patter as they touch the ground.

Now and then a winter Apple falls, so over-ripe that he breaks in two with a conchoidal fracture, scattering his sweet, sharp, cidery juice, or getting a bruise that oozes deliciously. Birds in the autumn garden are quiet, but twitter, making cosy, gossiping noises something like old maids at a tea party. Two blackbirds, Darby and Joan, enjoy themselves particularly in the Elder bush, black against black—or are the Elderberries purple? Rooks, after the sweet Acorns, are cawing and croaking, hoarse but cheerful, and best of all we are never long without the soft treble of the companionable red-breast.

Advising other people about their gardens seems something of an impertinence. Do we not all understand our own gardens best, as we know our own families, or think we do; but sometimes a chance word reminds. In the quiet of these autumn days could such time as we are able to devote to the garden be better spent than in routing out neglected spots and looking up forgotten corners? It matters not much where they are. An oasis garden is always a joy, and will be as long as mortals love so much the unexpected. Variety is still the spice of life. Who knows? Perhaps some distant corner, reclaimed from obscurity, may mean room for a new rockery or alpine garden, a Fern bank, or even for some lucky ones, space to begin a wall or water garden.

Such work makes happy the shortening days; routine is very well, but fresh starts are far more stimulating, and in gardens as in larger spheres there are not many better things to do than trying to make rough places plain, and desert spots to blossom like the Rose.

F. A. B.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

MALMAISON CARNATIONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The notes from Lady Tweedmouth (page 206) and that on page 224 from Mr. J. S. Higgins are of much interest. Certainly if exhibition blooms are not required and stock is sufficient the plants can be had in flower for a very long time.

Early and late propagation, potting, size of pots used, and age of the plants have much to do with the question. I should not recommend the varieties Lord Rosebery and Ivanhoe. Each is good in its proper season, but I should discard them altogether as perpetual bloomers. Princess of Wales and the old Blush are very good for winter blooming. For a scarlet I should strongly recommend Sir Charles Freemantle or Princess May. Nautilus, light flesh, is first-rate for this work, and also Maggie Hodgson, the darkest coloured Malmaison we have. I have found all these to be free blooming the whole year round. I have seen a two year old plant of Nautilus in a 24-inch pot with sixteen blooms in January.

Finchley, N.

STEPHEN CASTLE.

HELIOPSIS PITCHERIANUS AND H. B. LADHAMS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have to thank Mr. E. Molyneux for his note with reference to the above. I find that *H. pitcherianus* is quite as deep in colour as blooms of *H. B. Ladhams* kindly sent me by the Rev. C. Wolley Dod the other day, though *H. B. Ladhams* is larger and, as Mr. Molyneux says, more pleasing in form. Even it, however, is surpassed in colour and other respects by a seedling raised at Edge Hall. It is considerably deeper in its shade of orange-yellow.

Carsethorn, by Dumfries, N.B. S. ARNOTT.

NARCISSUS POETICUS FL.-PL. NOT FLOWERING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was surprised to read on page 216 of THE GARDEN that annual lifting is the only remedy whereby to obtain good blooms of this *Narcissus*. I take it this and the following remark, "one kind, the old double white, is a complete failure if left in the ground," applies to Mr. Cornhill's peculiar circumstances and soil at Byfleet, and that he does not advance "annual lifting" as the general remedy. I notice also that Mr. Cornhill appears to plant this variety somewhat shallow, as he advises digging in the manure only "6 inches deep." That this is done, so that the manure may "not come into contact with the roots," would indicate a very shallow planting of the bulbs. This in my experience would account for much. I have so frequently written of this *Narcissus* in THE GARDEN in the last few years, and made so many experiments with the best produce procurable, that I am interested in anything that is written about it. If Mr. Cornhill really obtains fine flowers year by year from the same bulbs lifted annually and grown in so light a soil as in the Byfleet district, and this by shallow planting, I may say at once that it is a quite new experience. In this district after a batch had been lifted and replanted the absence of flowers was noticed more than ever, and this fact with other experiences urged me to recommend that the bulbs were best left alone. Frequently, too, I have urged that at least they should be planted 6 inches deep, and better at 8 inches, and this preferably in rather heavy soils. I consider, too, that a cool position is also helpful, aiding, as it does, an increased longevity of the growth of this late-flowering *Narcissus*. My chief reason for advising the permanent planting was based on the more or less perpetual rooting of this little group and likewise the tenacity of the root-fibres even when out of the ground. I believe I am

right in saying that one may lift the above *Narcissus* at almost any season of the year and find root-fibres varying from half an inch to many inches in length. I know of no other set or section that has this characteristic so strongly marked. It was this profuse rooting character that made me decide that permanent planting was the best. As the subject is opportune Mr. Cornhill may have something further to add, and any means whereby a greater number of flowers can be obtained will be welcomed.

Hampton Hill.

E. JENKINS.

PRUNING CLEMATIS MONTANA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I can quite endorse the remarks made by your correspondent "S. W. F." on page 198 respecting *Clematis montana*. My experience of this useful and interesting climber is that it is very long lived and rather difficult to destroy. I have now one under my charge that was planted over forty years ago. This plant has had a lot of rough usage in the way of pruning, and is now as vigorous as ever. I planted two strong plants of *C. montana* twenty-eight years ago. One of these has been cut down to the ground three times since planting, and is now growing as vigorously as ever. The other plant has been left much to itself, and is now covering a very large space. It is covered each year with lovely white blossoms. *C. montana* is much like the common Traveller's Joy, or Virgin's Bower (*Clematis Vitalba*) in habit. How often do we see this ruthlessly cut down, and sometimes we wonder if it will ever survive such rough treatment, but after a year or two we find it growing stronger than ever and filling the air with its fragrance. *C. montana* will survive the roughest treatment, but it is well worthy of a place in every garden, and will amply repay the grower for the best of treatment. T. B. FIELD.

NURSERY GARDENS.

MESSRS. JAMES STREDWICK AND SON'S NEW CACTUS DAHLIAS.

MESSRS. STREDWICK'S *Dahlia* grounds were hardly seen to the best advantage when I paid my annual visit to them at St. Leonards on the 19th ult. The plants had not quite recovered from the effects of the severe storm of the 10th ult.; indeed, it was only the sheltered spot in which the gardens are situated that prevented further serious havoc from being made among them.

In spite of the drawback I have named some grand flowers were showing, exhibiting in a marked degree the fine form, freshness, and depth of bloom which have made this firm's flowers so famous and contributed to their numerous successes on the show boards and before the committees. In this connexion I may mention that this season out of twelve first-class certificates granted to new Cactus Dahlias this firm have obtained nine—truly a remarkable achievement.

Taking the new flowers in the order in which I saw them, first came Oliver Twist, a fine exhibition flower, with petals much twisted, as its name would imply; Rainbow, a pinkish heliotrope bloom of good shape; Mrs. Wilkinson, delicate pink; Comet, a pretty flower of the Alpha type, pale pink ground, spotted with crimson, a considerable improvement on Alpha in habit; Ella Kraemer, rose, one of the most beautiful; George Gordon, yellow, shading slightly to pink, about the best yellow Cactus Dahlia I have yet seen; Hereward, an improved Alpha; Ivanhoe, orange, beautifully incurved; Mrs. H. L. Brousson, a notable flower, of a colour difficult to name—perhaps pale buff would best describe it. A bunch of this won the president's silver medal at the Drill Hall show of the National Dahlia Society. Next is Pearl, pinky lilac, showing white reverse at the tips of the petals—a most refined and beautiful thing; Sirius, a yellow ground fancy, more constant than the

older Vesuvius; and last, but not least, Miss F. M. Stredwick, white, a most reliable flower in all ways, and one that will prove indispensable to exhibitors.

Messrs. Stredwick are the winners of the handsome silver challenge cup offered this year for the first time by the National Dahlia Society, an honour well merited for the careful and persistent pains they take to improve the Cactus Dahlia, not only in shape and colour, but also in what is now being considered of great importance, viz., habit of growth. The beautiful flower that hides its head is reckoned of no account now; it must have a bold, erect carriage, and be well seen above the leaves.

F. H. C.

THE FRUIT GARDEN.

THE NUT.

COB NUTS and Filberts require more pruning and cutting than any other fruit tree. When received from the nursery these trees have a small head upon a stem 12 inches to 15 inches high. This stem is provided in order that the ground beneath the bush may be more readily tilled and kept free from weeds. They are planted as received, and after being allowed to grow for one year the shoots are pruned closely, to make them throw out vigorous shoots to form the foundation of the future tree. At the annual pruning make the cut so that the terminal shoot is produced from a bud pointing outwards; in course of time a basin-shaped head of branches will result. The best shaped old trees I have seen started with six shoots cut back to form twelve main branches; from these spurs or short shoots are given off, on which Nuts are produced. If the trees are well managed, when 100 years old they will be 15 feet to 20 feet across the top, but not more than 5½ feet from the ground. From the bent portion of the main boughs a number of strong annual shoots are produced, which in Kent are called wands. Some of these are taken out in summer for packing the autumn fruit; in winter the remaining ones are broken out, and either sold for flower sticks or basket-making, or reserved to pack the soft fruit of next season.

The male catkins of the Cob and Filbert Nut are freely produced as early as February on the upper parts of the boughs, and should be allowed to remain long enough to fertilise the tiny crimson female flowers which are produced on the smaller boughs. When the weather is very warm and still it is advisable to tap the branches with a stick to disperse the pollen.

At the winter pruning the spurs are thinned, and, if necessary, shortened. Old wood is removed, and the stronger growths cut back and thinned, leaving the tree regularly balanced on all sides, allowing the free admission of air and sun among the branches. The foliage is larger on pruned trees. In July or August, if time permits, it greatly helps the tree to break off the stronger shoots on the upper boughs (a sharp twist with the finger and thumb being all that is required); this benefits the buds below the fracture and assists in ripening the wood. It is found better than cutting, as the broken surface allows the sap to exude, preventing the formation of a secondary growth, which would weaken the bush and be of no value. In summer gross central shoots should be cut away also. At the winter pruning the broken ends are severed with a sharp knife. A careful pruner will always proceed so that there is an abundance of fresh young wood in the trees; and when a twig shows signs of age he cuts so that a fresh one shall succeed it for next year's fruiting: worn-out twigs are thus never seen in old trees. Suckers from the roots

should be hoed off or severed with a sharp spade, and if well rooted may be reserved to make future plants.

Kent is noted for its fine Nuts, and only because in that county a vigorous system of pruning is carried out. Where the trees are allowed to grow naturally and wildly the Nuts are small, and the crop is almost worthless. They respond to a liberal treatment, and well repay for manuring occasionally as well as for the pruner's labour.

GEORGE BUNYARD.

FIG BROWN TURKEY ON OPEN WALLS.

IN spite of one of the most variable seasons on record the above excellent Fig has done remarkably well on a west wall, and the trees have made very strong growth; indeed, too strong probably, as unless we get fine weather the wood will not ripen, and will be liable to injury in the winter or early spring. No matter where grown the trees will repay some protection, say from early December to April, and it is an easy matter to protect by using Straw, or, what is better, Bracken cut when green and dried for the purpose. It is easy also to detach the leading shoots and draw together, and cover with the protecting material and fasten firmly to the wall. Few fruits are more delicious than well ripened open air Figs. This year our fruits were later than usual, not being ripe till the end of August, but a great deal depends upon whether the fruits are freely exposed or not. It is well to avoid crowding the main branches, and to stop lateral growths or entirely remove where necessary. In some of the southern counties this variety does well as a standard, and grown thus the trees crop freely for many years. In the Midland counties a south or west wall is most suitable for Fig culture; in Devon Brown Turkey gives grand crops on an east wall. No matter where grown the plant must not be allowed too much root run.

I find it well to feed when the fruits are a good size, but all foods are given in the way of rich surface dressings. With a restricted border feeding can be done readily, and the trees get the food when better able to absorb it. In very severe winters I have had the trees so badly injured that the wood has been killed to the ground level, but they soon push up new growth and recover, and fruit in two seasons. It is surprising what vigour these trees have, and as most growers know the

new wood at the end of a season is studded with the embryo fruits, these should be taken care of; it is the small fruits just showing that will furnish next season's early crop. Large fruits that do not ripen now are of no value for another year.

G. W. S.

GARDENING OF THE WEEK.

KITCHEN GARDEN.

PROTECTING VEGETABLES.

VERY much may be done to prolong the supply of summer vegetables by closely observing the weather, and affording some slight protection when frosts are likely to occur. In gardens where large quantities of each kind are required over as long a period as possible much preparation and forethought must be brought to bear upon the matter, and even then it is somewhat difficult to give the protection necessary owing to the extent of the crop; especially does this apply to Peas and Beans. A matter of first importance with these at this season is to keep them picked closely, and if stood on end in shallow vessels of water in a frost-proof shed they will keep good for several days.

By having several vessels, and attaching a label to each with the date the pods were gathered, and using those gathered the longest, the season may be prolonged many days after frost has cut up the plants. In smaller gardens the rows may be covered at night with any rough material, as tiffany, mats, and sheets. At this time Asparagus beds are usually mown over if the tops are sufficiently matured, and these may be laid lightly upon rows of late Peas and Beans. This operation is very simple and effectual.

CAULIFLOWERS AND AUTUMN BROCCOLI

not fully grown should have the leaves drawn loosely together and tied at the top to protect the hearts, while those that are ready for use may be dug up and hung head downwards in a frost-proof dark shed, where they will keep in good condition for several days. Continue to earth up Celery when the tops are dry in order to protect from frost and to blanch it. The same remark applies to Cardoons.



COB NUT BUSHES IN KENT.

Provision must be made for ensuring a supply of fresh green

PARSLEY

throughout the winter months, and if through any cause that sown or planted in frames is not healthy, then some rough frames should be placed over a bed in the open. Remove the lights on fine days, and replace at night when frost and cold rains are imminent. Aim at producing a sturdy growth before severe weather sets in.

POTATOES.

It is now time that all tubers were lifted and properly dried and stored. Fine days should be chosen for the work as far as possible, as then the tubers quickly dry and can be stored right away. Watch closely for any having the least suspicion of disease and throw them out. The seed tubers may remain upon the ground for a day longer if there are no signs of frost, but rather than run any risk collect them and place under cover, afterwards laying them out thinly in trays or on shelves in the root shed.

Stoneleigh Abbey Gardens.

H. T. MARTIN.

FRUIT GARDEN.

PEACHES.

Now that the Peach season is over advantage must be taken of every fine day for renovating the borders in succession and late houses, as it is of no use trying to grow first-rate Peaches where the roots are in an unsatisfactory state. It unfortunately often happens that the proper period for lifting, which extends from the gathering of the last fruit up to the fall of the leaf, is allowed to pass away before this is the case. Very few, if any, new roots are formed before the trees are again excited into growth. Another important matter which is sometimes overlooked during the quiet time in this department is the watering of inside borders; hence the advantage of having portable roof lights, which can be taken off for a few weeks after the wood is ripe to expose the foliage to the cleansing influence of dew and autumn rains, and to ensure a complete and even soaking of every part of the border. If well drained and properly made, an internal Peach border can hardly be over-watered in summer, and certainly it never should be allowed to get dry in winter, neither should the buds be exposed to an exciting temperature after the leaves fall, but the chief aim should be thorough ripeness by the application of warmth and complete rest by exposure to the elements. A visit to the nursery before the leaves fall should always precede the purchase of young trees, as many of the varieties can be determined by their foliage. One section is without glands; nearly all the varieties have large flowers, and the trees are more or less subject to mildew. The next section, including many of the best varieties, may be determined by the leaves having round glands, and the last by their assuming the kidney shape. Equally important is the selection of the stock, as all the varieties cannot be induced to succeed on any one particular kind.

CUCUMBERS.

The August-sown plants will now be in a fit state for bearing a few Cucumbers if wanted, but if not required the removal of all male and female blossoms for some time longer will give increased strength and better prepare them for giving a full supply when the plants in the pits and frames are no longer profitable. Where former directions have been followed and plants in pots or boxes are placed on pedestals, thoroughly worked fermenting materials, consisting of Oak leaves and short stable manure, will now play an important part in keeping up a genial bottom-heat in every way preferable to that obtained from hot-water pipes, as the ammonia given off by the manure is obnoxious to insects, and the constant presence of atmospheric moisture reduces syringing to a minimum. In the arrangement of the plants an effort should be made to keep the stems well away from the top-heat pipes, as it is at this part of the house that spider first puts in an appearance, and the hot steam generated by constant syringing often increases the evil by scalding or making the foliage too

tender to withstand the attacks of the enemy. Young plants may still be raised from seed for fruiting in February and March, a time at which good fruit is never too plentiful. To succeed with these, light rich turf, medium-sized pots, and good drainage are essential.

WILLIAM CRUMP.

Madresfield Court Gardens.

INDOOR GARDEN.

FERNS.

SUCH plants as have been used for decorative purposes, particularly those for placing among large groups, will have suffered considerably, and as the bulk of these will consist of *Adiantums* and *Pteris* in variety, the fronds may now be cut off, the crowns of the plants cleaned over, and the plants placed in a close house where a temperature of 55° to 60° can be maintained with a little humidity in the atmosphere. There they will start into growth in a short time. When large quantities of these are required all fertile fronds should be preserved, and as the spores ripen sow them in shallow pans which have previously been drained and filled with a light peaty sandy soil; press firmly to half an inch below the rim of the pan. When sown cover with a sheet of glass and place them in a close house or case in 60° of heat, where a large proportion will germinate, but the sun must not be allowed at any time to reach the pans. Other Ferns now in small pots may receive a shift to one size larger pot. Plants in large pots should be allowed as much room as can be afforded them. *Gymnogrammas* should be elevated on an inverted pot; these last named require more heat than other Ferns and are best retained in the stove.

CAMPANULA PYRAMIDALIS.

The young stock of this *Campanula* should now be placed in 8-inch pots; a rather strong loam, with a little lime rubble, sand, and old Mushroom bed manure rubbed through a sieve will grow them well. A side stage in a cool house is a good position for the winter, as here they would retain their foliage better than if wintered in a pit where the light reaches the tops of the plants only.

MIGNONETTE.

The first sown batch should have a light airy position close up to the glass allotted to it; attention must be paid to watering of the plants, as should they become too wet they are apt to damp off. Seven or nine plants in a 5-inch pot are quite sufficient, which must be supported either by a light single stake to each plant or by two or three strands of matting encircling the plants and kept in position by four or five stakes pushed into the pot.

SHOW PELARGONIUMS

recently repotted should have a light position near the glass; these require to be carefully ventilated in changeable weather, and should not be subject to a lower temperature than 50° after they have once started until a good root action is established.

CALCEOLARIAS

should be potted on as they require it, and as they usually grow rapidly during September the strongest plants should now be large enough for 6-inch pots, which will carry them through the winter.

CALADIUMS

The later plants are still moderately fresh, but encourage the ripening of the earlier ones by laying the pots in the sun in a light house with abundance of air until the foliage dies down, when the tubers may be shaken out of the soil and carefully labelled in preparation for storing away. Even when at rest the *Caladium* tuber will not survive long exposure to a temperature of much under 55°.

Wendover.

J. JAKES.

FLOWER GARDEN.

WITH cold nights and a general decline of temperature the green colour of the leaves of many trees which have been this season very beautiful must give place to varied tints of yellow, brown, red, and purple; but, rich as these hues may appear, we must only look upon them as the forerunners

of stormy blasts, with cold and heavy rain, or perhaps frosty nights. We must, therefore, be ready to take up such plants as would suffer from the inclemency of the weather. Lawns should now be kept well rolled and closely mown, for if this is not done before winter they can neither be so easily nor so smoothly cut in spring; besides, as it will now be frequently necessary to remove fallen leaves, the latter can be much more easily swept up when the grass is smooth and cut short. Walks should now be kept well rolled, and the edgings neatly cut. When walks, edgings, and lawns are in high keeping the garden, though not now so gay with flowers as in summer, will nevertheless have a pleasing effect from the contrast with the decay of vegetation elsewhere.

FUCHSIAS.

These beautiful and deservedly-popular plants have had a good time of it this season, and many of them are now at their best; they can be had in various heights and colours, and many of them are most beautiful as border plants. When grown as pyramids they are splendid for centres in beds. For amateurs the hardy forms, such as *Riccartoni*, are very useful, and stand the severest winters if the roots and collars are well protected with a little litter. *Fuchsia Meteor*, with its crimson-toned foliage, makes a most effective bed in some places. It is as easily managed as any of the ordinary *Fuchsias*. *F. carolina* is an excellent variety for planting out in beds as dwarf standards. It is a vigorous grower and blooms freely. *F. Vanguard*, with its white corolla and red sepals, makes a good bed, and so does *F. Blanchette*. *Golden Fleece* is also very fine, and the hardy *F. Riccartoni* is very useful as a shrubby plant, and in the case of those who have not much glass it may be used for the centres of large beds. All the *Fuchsias* strike freely in autumn and spring in a little heat. They all delight in rich loamy soil when planted out, and are easily kept through the winter. A dry shed from which frost can be excluded suits them well.

THE AUTUMN LOBELIAS.

Where these are growing in situations rendering their removal necessary, they should now be bared up, using the ordinary border soil that is fairly moist. Pack them thickly together, and do not give them a drop of water until they are pulled to pieces and restored in spring ready for a start. We often hear of losses through the winter months; these can invariably be traced to too much moisture.

DACTYLIS GLOMERATA VARIEGATA.

This variegated form of a native grass is one of the most useful edging plants we possess. It is easily propagated by division, and now is the best time to divide it. It requires a rather heavy soil, but in this respect it is not very fastidious, and thrives in almost any soil if rich. If the soil be poor the plant is apt to get rusty-looking in a dry autumn. It should not be allowed to flower. It bears clipping well, and may be kept very dwarf if necessary. *Dactylis glomerata variegata elegans* is a good variety, and most useful for edging.

T. B. FIELD.

Ashwellthorpe Hall Gardens, Norwich.

CHRYSANTHEMUMS.

ON the whole the plants generally are looking remarkably well, and I shall be sorely disappointed if flowers of great excellence are not to be frequently met with next month. Many are under the impression that there has not been sufficient sun thoroughly to mature and ripen the wood, but if the plants have been allowed ample room and they have been grown in an open airy position, there need, I am sure, be little fear as to this. It is important that the plants are carefully tended after they are housed, one of the chief factors being that each one is allowed ample room; overcrowding at this stage is, as I have often pointed out, most detrimental to their proper development, and it is far better to consign any which are not likely to render a good account of themselves to the fire rather than attempt to place them too thickly together.

Thin out any growths which are not promising, oftentimes, for reasons which are unavoidable, there are two promising buds and one much later; the tall late one should be taken out, as retaining it after this date, though it may have served a useful purpose, will be prejudicial to the remaining ones. Each flower should be properly supported or in all probability many of them will become broken; thin tips of Bamboos make excellent supports for them if neatly tied on about 18 inches in length, as these serve the purpose and are not at all unsightly. The houses in which the plants are to flower should be made quite drip proof by repairing all broken and cracked glass, or much damage is likely to accrue from this. Admit air freely both night and day whenever the weather is favourable, and use a thin shading, especially during the early part of the day, to those which are likely to be too early, but on no account go to the extreme in this or the colouring will be much impaired.

SPECIMEN PLANTS.

Complete the disbudding of these as soon as possible, and keep them well supplied with manure water. Air freely and elevate the plants near the glass. No pains should be spared to retain as much of the foliage as possible, both for the sake of producing fine blooms and for appearance. Should rust show itself turn the plants on their sides and thoroughly syringe the undersides of the leaves with paraffin and soft water, using two wine glasses of the first named to every five gallons of water, care being taken to keep it well mixed; this should be repeated every other day, and if persevered in rust will do but little harm. Dust the foliage also with black sulphur to ward off attacks of mildew.

POMPONS.

Continue to disbud these as soon as the buds are large enough to handle with safety, but care should be taken not to do so too severely. A partial thinning out of the smallest of the buds is all that is required, just sufficient to allow each flower to develop perfectly. If not already done place them under glass where they can be aired freely, and give manure water every other watering. The final tying should be made at this date, looping in the growths to the central stake, using finely twisted bast in as pleasing and natural a manner as possible. No Chrysanthemums are more effective or useful than a well grown batch of these, and are sure to find many admirers. Late flowering sorts, which are specially cultivated for blooming at midwinter, should be kept outside for some time to come, but at the same time these should be arranged in a place of safety, where they can be thoroughly protected in case of severe frost; the points should in no case be allowed to become frozen. E. BECKETT.

Aldenham House Gardens, Elstree.

THE EDITOR'S TABLE.

We invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London.

ELDERS FOR THEIR FRUIT.

It is pleasant to be reminded by a contributor of fruits of the Sweet Elder or common American Elder (*Sambucus canadensis*) and the red-berried Elder (*S. pubens*); they were sent by Heinrich Henkel of Darmstadt, with the following note: "It may interest your readers to hear of these very free-flowering species; they flower nearly all the summer, and the immense white heads are a remarkable feature in large gardens. They are in beauty at a time when flowering shrubs are rare.

The fruit of *S. canadensis* is blue and of *S. pubens* of a red colour. Both these species of *Sambucus* enjoy a wet place." It may be well to point out that *S. pubens* is considered by many as a synonym of the scarlet-berried Elder (*S. racemosa*). We are pleased to draw attention to species so attractive for their fruit colouring at this season.

EUCRYPHIA CORDIFOLIA.

Miss Douglas Pennant sends from Penrhyn Castle, Bangor, North Wales, flowers of this beautiful white-flowered shrub, with the following interesting note: "Eucryphia cordifolia is not often seen in bloom out of doors. The enclosed sprig is from a plant here which has not flowered before this year."

DOUBLE WELSH POPPIES AND OTHER FLOWERS.

A most interesting contribution to our table comes from Mr. J. McWalters, The Mall, Armagh; it consists of several flowers. Among them is a *Gladiolus* called *micromegas*; the flowers are of a warm purplish colour, and though of uncommon shade are in a measure distinctly handsome. The purple *Aster hybridus nanus* and the richer purple *A. amellus elegans* are well worthy of note for their bright and yet deep colouring. We have written before of the double or semi-double Welsh Poppies from Mr. McWalters. The flowers are intensely rich in colour, orange, yellow, and other shades, and have the merit of lasting longer in beauty than the single forms. This double race is worthy of all praise.

HÆMANTHUS KATHERINE.

It is some time since we have seen this brilliant scarlet flower, but Mr. W. Richardson, of Messrs. W. Balchin and Son, of the Hassocks Nursery, Hassocks, Sussex, reminds us of its beauty. It has a greater refinement than many of its race, and is the one species we should like to grow. Our correspondent writes: "The spikes are from a plant in a 6-inch pot. It is so seldom that one sees this plant, though it is very bright in the stove at this time of year."

A FINE FORM OF SEDUM SPECTABILE.

Mr. Amos Perry sends from his hardy plant farm at Winchmore Hill, near London, a very richly coloured variety of *Sedum spectabile*, called *atropurpureum*; with Mr. Perry's opinion of the plant we are in full agreement: "It is without doubt the brightest coloured autumn flower we have, and when growing beside the type it makes it look quite a worthless plant. It is not new but very scarce, and will prove a valuable addition to our autumn flowers."

AUTUMN FLOWERS AND TINTS FROM IRELAND.

Mr. Newry sends from the Daisy Hill Nursery a large gathering of flowers and leaves of autumn colouring. We have not space to describe these individually, but give the list as an indication of the number of beautiful autumn-flowering trees and shrubs that now add richness to the garden.

<i>Vaccinium corymbosum</i>	<i>Trachymene coerules</i>
<i>Viburnum plicatum</i>	<i>Meconopsis cambrica auranti-plena</i>
<i>Cornus florida</i>	<i>Linaria maroccana alba</i>
<i>Clematis campaniflora</i>	<i>Vitis Thunbergi</i> (superb for size and crimson colouring of the leaf)
<i>Quercus rubra</i> fol. aureis	<i>Vitis dissecta</i>
<i>Cotoneaster acutifolius</i>	<i>Colnetiae</i>
<i>Arbutus canariensis</i>	<i>Prunus sinensis</i>
<i>Comptonia asplenifolia</i> (with very fragrant foliage)	<i>Pyrus melanocarpa</i>
<i>Ostrya virginiana</i>	<i>Colchicum giganteum</i>
<i>Verbasum densiflorum</i>	<i>Rhus copallina</i>
<i>Sanguinaria canadensis</i>	

ANNUAL ROSES.

I send for your table some sprays of tiny Roses (*Rosa polyantha multiflora*). They come into flower in June if the seed be sown in February. Here a long Rose and Lily border has had an edging of them. The plants, two years old, have blossomed profusely during the summer, and are now covered with flowers and buds; indeed, seem almost perpetuals, since they continue blooming until December under the shelter of a low wall.

I hope they will arrive in good condition; they deserve a word in their favour in your valuable paper. SUFFOLKIAN.

A delightful gathering of this sweetly scented, profuse flowering little Rose.

KEW NOTES.

INTERESTING PLANTS IN FLOWER.

Temperate House.

GREVILLEA BANKSII VAR. *FOSTERI*, *G. thelemanniana*, and *Tricyrtis hirta*.

Orchid Houses.

Bulbophyllum Gentilii, *B. recurvum* var., *B. rufinum*, *Catasetum fimbriatum*, *Cattleya dormaniana*, *Cochlidia vulcanica* var. *grandiflora*, *Celoglyne fimbriata*, *Cypripedium* in variety, *Dendrobium capitulifolium*, *D. formosum* var. *giganteum*, *D. secundum*, *D. terminale*, *Epidendrum inversum*, *E. prismatocarpum*, *E. vitellinum*, *Gomeza planifolia*, *Lissochilus malanjanus*, *Masdevallia Chimera*, *M. macrura*, *Maxillaria variabilis* var. *media*, *Miltonia candida*, *M. cuneata*, *M. spectabilis* var. *moreliana*, *Odontoglossum grande*, *Oncidium crispum*, *O. Forbesii*, *O. tigrinum*, *O. varicosum*, *Pleurothallis maculata*, *P. pulchella*, and *Stanhopea oculata*.

T Range.

Dædalacanthus parvus, *Eranthemum Andersonii*, *Ipomoea bonariensis*, *Kleinia Galpini*, *Pavetta hispidula*, *Ruellia macrantha*, *R. macrophylla*, and *Tupistra grandis*.

Succulent House.

Agave Baxteri and *Furcraea* sp.

Greenhouse.

Begonia evansiana, *Bouvardias* in variety, *Chironia linoidea*, *Chrysanthemums* in variety, *Jacobinia chrysostephana*, *Lantana salvifolia*, *Salvia azurea*, *S. splendens*, and many other things.

Borders near Orchid and No. 1 Houses.

Amaryllis Belladonna.

RECENT PLANT PORTRAITS.

THE *Botanical Magazine* for October contains portraits of

Areca? Micholitzii.—Native of New Guinea. A tropical Palm which, though it flowered this year at Kew, did not produce any fruit. It is thought that when it does fruit it may turn out not to be an *Areca*, but to belong to some other family.

Cotyledon (Echeveria) pulvinata.—Native of Mexico. This is a rather curious succulent, with hairy leaves and orange-yellow flowers.

Lysimachia crispipendens.—Native of Central China. This is also known under the synonym of *Stimponia crispipendens*. It is a pretty and very free-flowering species, with rosy purple flowers. It is believed not yet to have reached its best in cultivation, and ought to have a future in English gardens.

Tulipa przewalskii.—Native of Bokhara. This is a very bright early-flowering Tulip, remarkable for bearing two or more flowers on one stem.

Lissochilus purpuratus.—Native of tropical Africa. This is also known under the synonyms of *Limodorum cristatum*, *L. articulatum*, *Galeandra longibracteata*, *Eulophia articulata*, and *E. longibracteata*. It is a very ornamental terrestrial Orchid, producing long spikes of pale rosy flowers, with a rosy purple lip.

The first part of the *Revue Horticole* for October figures

Cotyledon macrantha, a handsome succulent, with bunches of deep orange flowers.

The October number of the *Revue de l'Horticulture Belge* contains portraits of

Callistemon lanceolatus, a bright and beautiful shrub from New Holland, with rose-coloured bottle-brush flowers; and

Selaginella watsoniana, a beautiful and distinctly variegated form introduced by Messrs. Sander.

In the *Revue Horticole* is described a new form of the pretty continuous blooming

Primula obconica or *poculiformis*, which is said to be by far the reddest shade of any yet seen. It is to be distributed this winter by its raisers, Messrs. Rivoire of Lyons, under the name of *Le Vesuve*.

In the same number is given a new remedy for that dreadful infestation, mealy bug; it is extremely simple, and said to be infallible. It is to wash the stems and branches of the Vines infested with a solution of permanganate of potash, consisting of 12.5 grammes to 10 litres of water. The application should be made in spring when the Vines are beginning to shoot, and the solution should not be made till immediately before its application, so as to lose none of its power. W. E. GUMBLETON.

SOCIETIES.

CONFERENCE ON VEGETABLES.

CHISWICK, SEPTEMBER 28.

THE exhibition of fruits and vegetables, with a conference on the latter, formed a fitting conclusion to the long series of interesting functions that have taken place at Chiswick. As Mr. George Bunyard, V.M.H., who occupied the chair, remarked, the gathering will ever figure largely in the annals of the Royal Horticultural Society as the last to be held in the Chiswick garden. And, as far as conferences are concerned, one can hardly regret the passing of the gardens, for of late years, at any rate, it has never seemed possible to make adequate arrangements to ensure the comfort of the speakers as well as of the audience. On this occasion there were the counter attractions of remarkable displays of fruits and vegetables.

The chairman's introductory remarks were rather those for a conference upon fruits than upon vegetables, but the intimate association of the two commodities in the garden as well as the exhibition justified the standpoint from which he spoke. In particular reference to vegetables one was glad to hear the insistence upon their health-maintaining properties as well in their consumption as in their production. Comparatively few people realise what an immense power for good vegetable gardening in rural England has come to be. It has stirred up a rivalry—happily, almost always friendly—amongst the visitors, and their keenness leaves them little time to devote to other and often less beneficial pursuits. Mr. Bunyard paid a graceful tribute to the giants who have crossed the great divide, and whose presence at previous conferences had done so much to help them on to success.

In the unavoidable absence of Dr. Bonavia and Mr. James Hudson, V.M.H., it was decided that their contribution "On Cooking Vegetables" be taken as read, and the chairman called on Mr. W. H. Divers for his essay, entitled

"VEGETABLES ALL THE YEAR ROUND."

Mr. Divers is a clever man and a most excellent gardener, but he found it impossible to deal with this vast subject in a complete manner in such a short paper. A less able man might have thought himself equal to the task. Not so Mr. Divers, who at once stated that all cultural points had to be omitted. At first glance this seemed regrettable, but the subject was so effectively handled that the lack of cultural data was hardly noticeable. The magnitude of the task in solid fact as well as on paper was acknowledged, and reference was made to the innumerable disputes that have arisen between employer and employed on this subject. Though Mr. Divers did not say it in just so many words, he strongly inferred that the cause of a break in the supply was seldom so much the fault of the cultivator as his misfortune in not having proper facilities. Give the gardener the essentials, and he will do the rest; but he cannot do impossibilities. The commonest fault, asserted Mr. Divers, was found in insufficient structures, both in the form of glass houses, pits, frames, and houses for storage, as well as sheds and cellars for forcing. The essayist, of course, made no attempt to say precisely what was necessary, as this is obviously governed only by the individual requirements of each establishment; but he laid down some general principles upon whose basis any place could be equipped.

As forcing plays such a conspicuous part in the maintenance of continuity of supply, houses were regarded as essential, and lean-to or hip-roofed as the most valuable form. Brick pits were spoken of as indispensable, as were also frames, cellars, and a Mushroom house. The growing popularity of cold storage was referred to, and Mr. Divers looked to the happy day when every garden would have such a structure, as this would assuredly facilitate the gardener's endeavours to supply vegetables all the year round. Of equal importance with proper buildings was the conveniences for heating them, and the desirability of having something in hand in boiler power and length of piping was insisted upon. The necessity for keeping all places in proper repair was also touched on by the speaker. Then Mr. Divers turned to the outdoor supply garden, and insisted that more care should be taken in choosing the site and the soil than has hitherto been the case. While admitting—even glorying in—the skill and resource of the gardener, the essayist said that it was an impossibility for him to entirely overcome natural disadvantages of this character. In form he would give the preference to a piece of ground running east and west and sloping to any quarter rather than the north. With suitable walls the oblong garden gave long borders, some warm and others cool, which were peculiarly valuable to the gardener either for pushing things along early in the season in the one case, or keeping them in steady progress in late autumn in the other case.

In dealing with cropping and manuring, Mr. Divers scarcely laid sufficient stress upon having a plan. Many cultivators rely upon their memories for the manner of cropping, but memories were ever treacherous things and apt to lead one into danger. The provision of a rough plan obviates all this, for the grower can then see at a glance how the cropping was done, and he is enabled to take the fullest advantage from the manuring by the institution of a perfect scheme of rotation and succession. References were made to the sowing and thinning of the seeds and young plants, these being regarded as important factors in the matter of providing a constant supply. As a filip to all growing crops Mr. Divers recommended a dressing of 3oz. of mineral superphosphate and 1oz. of nitrate of soda to the square yard.

"VEGETABLES FOR EXHIBITION."

In the exhibition arena Mr. Edwin Beckett constituted himself champion by winning the great class for a collection of vegetables, and at the conference he told the audience how such superb produce was to be grown. As a reader Mr. Beckett proved himself to be something more than a champion. His speech was too great for the reporter to turn a corner, not to speak of the opportunity to get on to a fresh page. There is no man in the country more capable of dealing with such an important subject as this than Mr. Beckett. He is able to lay down rules whose guidance will go far on towards ensuring success, and to him is due in no small measure the immensely increased interest that is now taken in vegetables at our great horticultural shows. Mr. Beckett insisted that production for show and production for home use were one and the same thing. He always, he said, directed his efforts towards perfection, and that found then his produce was suitable alike for the home or the exhibition table.

The essayist deplored the lack of uniformity in the judging of vegetables, asserting that the awards were made upon standards created by the adjudicators, and not, as should be the case, upon one clear and unanswerable principle. The question of size was, of course, touched upon, but until we attain to that Elysian state of having absolute rules neither Mr. Beckett nor anyone else will be able to make all judges agree as to where correct size ends and coarseness begins. It is precisely at this point that exhibition and home produce differs, for, speaking in the broadest sense, it can be said that all exhibition produce is larger than any that is sent to the table. Probably the most valuable portion of Mr. Beckett's paper was that which dealt *seriatim* with the several vegetables, and suggested the points upon which the judging should be done, and it was here that the lightning-like diction completely overpowered the reporter, making particulars impossible to secure.

In respect of the working of the land Mr. Beckett gave most admirable directions. He plumped absolutely for trenching under all circumstances, and recommended that it should be carried to the utmost depth possible. His suggestions for manuring were such as would make the less fortunately placed individual envious, but in this as well as the mechanical working, the directions may be taken as more particularly applicable to the Aldenham soil, as they might not be followed by equal success upon all the varying lands of the country. The time at which soils should be worked is of vast importance, as their fertility is largely affected thereby. Mr. Beckett advocated early autumn for light land and late in February for heavy ground, the latter having been lightly and roughly forked over in the autumn. He insisted upon the positions of all crops being changed every year, but referred to Onions as not necessarily being subject to this rule. The selection, preparation, and staging of produce for and at exhibitions were all adequately dealt with by the speaker, who urged uniformity in sizing according to the kind, and the most scrupulous care in washing, so that while every article would be spotlessly clean there would be no abrasion of the skin from scrubbing. Probably the best object-lesson in staging was Mr. Beckett's own exhibit in an adjoining tent, for few, if any, amongst us have ever seen a more beautiful exhibit.

"VEGETABLES FOR MARKET."

Though written by Mr. W. Poupert, this paper was read by Mr. W. J. Lobjott, and one can scarcely recall a happier case of collaboration. The paper was humorous as well as instructive, and its delivery was of exceptional excellence. The first complaint was that there had not been a corresponding advance in the methods of distribution with the march of time with its enormously greater demands. The same means that answered well in the Georgian days were expected to prove satisfactory now, when not only was more produce required, but it had to be carried greater distances, for the reason that the expansion of residential London had forced the market gardeners further and further from the centre of distribution. He made the statement—and it must surely be regarded as a remarkable one—that the municipal market at Brentford was the only one of its kind in London. The essayist urged the necessity of more direct supply as between the producer and the retailer. This he asserted would result in the consumer getting far fresher vegetables at lower prices. The local greengrocer worked on a limited supply and big profits, which was readily understandable when we remembered that he had to get up at unearthly hours to drive to market for his wares, which in all probability had passed his own door in the producer's vans some hours previously. He thought that the costermonger was a useful section of the community, and trusted that the efforts of the shopkeepers would not result in his complete extinction.

But if there has been little change in the methods of distribution there have been vast alterations in the means of production, whereby everything has been more or less cheapened. Still, perfection has not, in the opinion of the essayist, yet been achieved even in this direction. He wants a machine that will wash and brush up his Radishes, both operations now being done by tedious and comparatively expensive hand labour. He called for the reason why the people of England would insist upon having large vegetables. Quality, as he regarded it, was almost invariably to be found

in conjunction with medium rather than large size; but he was quite aware that his views were not those of the consuming army. The speaker's references to seedsmen's catalogues were distinctly humorous. He seemed to think that 129 varieties of Peas which he had found in one catalogue was carrying the thing a trifle too far.

The discussion was limited to one or two questions, and votes of thanks to the chairman and the essayists closed the proceedings.

NATIONAL AMATEUR GARDENERS. LIVERPOOL SECTION.

THE monthly meeting of this association was held in the Common Hall, Hackins Hey, on the 1st inst., Mr. Hancock presiding over a good attendance. Mr. R. Pinnington was the lecturer for the evening, the subject being "Round About the Flower Shows." In opening the subject, the lecturer said that in the short time at his disposal he intended to give them some lessons from his visits to the various shows, which he hoped would prove useful. Table decorations were dealt with at considerable length, Mr. Pinnington stating that the time had now arrived when societies should demand something original from the tedious round of Coreopsis, Sweet Peas, Iceland Poppies, &c., which were beautiful, and could be used at all times of the summer in many ways.

A pretty miniature pool with creeper-clad rocks in the form of a basket was illustrated with others as forming a centrepiece (this by way of change), with low shallow bowls of foliage and flowers. Many designs were far too heavy. It is far better to err on the lighter side, which always gives a sense of relief.

For amateurs the inclusion in schedules of vases of *Roses* and *Dahlias* was strongly pressed, as by doing so the taste in arrangement would often play an important part, even though the varieties might not be unusual. The selection of the newer *Dahlias*, *Roses*, and *Sweet Peas* seen at the shows gave great satisfaction. *Shrewsbury* was described in a pleasing manner, the *Pentstemons*, which were so well shown, and which are not too largely grown in the Liverpool neighbourhood, being strongly advocated by reason of their many good qualities and usefulness in other ways for decoration, cut or otherwise.

Many other points were touched upon, and at the close Mr. Hancock said that the lecture had been much enjoyed, and must have proved of the greatest possible value to all present. Mr. Dodd and Mr. Wallace also paid a high tribute, to which Mr. Pinnington suitably responded.

BECKENHAM HORTICULTURAL SOCIETY. WINTER SESSION, 1908-1904.

SYLLABUS of lectures and meetings at the Church House on Friday evenings during the winter season: October 9.—"Spraying Fruit Trees and Packing Apples as practised in Canada," by Cecil H. Hooper, M.R.A.C., F.S.I., F.R.H.S. October 16.—Library and reading room. October 23.—"Experiments with Manures on Bush and other Fruits," by F. W. Shrivell, F.L.S., F.R.H.S. October 30.—Library and reading room. November 6.—"Insectivorous Plants" (illustrated with lantern slides), by Dr. J. B. Bidley. November 13.—Library and reading room. November 20.—"Heating and Ventilating Horticultural Structures," by W. J. Simpson. November 27.—Library and reading room. December 4.—"The Beautifying and Utilising of Waste Spaces, Railway Embankments, &c.," by E. Lovett, F.R.H.S. December 11.—Library and reading room. December 18.—"Herbaceous Plants," by Richard F. Martin. January 1.—"Wall and Water Gardens" (illustrated with lantern slides), by John Gregory (Past Kewite). January 8.—Library and reading room. January 15.—"Strawberries," by J. Lyna. January 22.—Library and reading room. January 29.—"Stem Sections—showing how the various structures are specially adapted for the work they do," by J. A. Watson. February 5.—Library and reading room. February 12.—"Sweet Peas," by H. J. Jones, F.N.C.S., F.R.H.S. February 19.—Library and reading room. February 26.—"Horticulture in the U.S.A. and Canada" (illustrated with eighty lantern slides), by J. Cheal, F.R.H.S. March 5.—Library and reading room. March 12.—"Auriculas," by William Beale. March 19.—Library and reading room. March 26.—"Landscape Gardening," by G. Reid (F.E.C., Royal College, Berlin). Mr. George Bunyard, V.M.H., chairman of the fruit and vegetable committees, Royal Horticultural Society, has kindly consented to give an evening on "New Fruits." The date will be duly announced.

CARDIFF GARDENERS' ASSOCIATION. SYLLABUS, 1908-1904.

OCTOBER 6.—"Notes on Hardy Fruits, more especially Apples and Pears," by Mr. John Baaham, sen., F.R.H.S., fruit specialist, Basalgog. Mon. October 20.—"Use of Chemical and other Manures in Horticulture" (illustrated by a series of limelight views), by Mr. F. W. E. Shrivell, F.L.S., F.R.H.S., &c., Thompson's Experimental Farm, Torbridge, Kent. November 10.—"Vines," by Mr. H. E. Farmer, gardener, Cardiff Castle, recently awarded a Knight's medal by the Royal Horticultural Society for Vines in pots, and gold medal for group of plants at Cardiff show in July last. November 17.—Through the repeated kindness of Mr. John Ballinger, chief librarian, the members will visit the Central Free Library to view the numerous and valuable works on horticulture (ancient and modern). December 1.—"Seed Saving and Testing," by Mr. H. K. Kiley (seedman to Messrs. Garaway and Co., and representative of the Bristol Gardeners' M.I. Association). December 15.—"Bees as Fertilisers, Florists, and Fruit Producers" (with lantern views), by Mr. W. Richards, hon. sec. G.R.E.A. lecturer to the G.C.C., and expert to the pro- January 12.—A meeting of "Fruits and Vegetables to protect against the waste of their food," by Mr. K. H. Batman, Manager, Sewage Farm, Park Newydd, Aberystwyth (who intends to deal with his subject in a humorous style).

January 22.—"Orchids," by Mr. E. W. Davy, gardener to J. Neale, Esq., Orchid collector, Penarth. February 9.—"Tomatoes," by Mr. F. Waller, grower to Messrs. Norton & Co., Eastbrook Nurseries, Dynas Fowls. February 23.—"Our Summer Friends" (illustrated with various specimens). Mr. J. Mountney, naturalist (preserver to the Cardiff Museum), Royal Arcade, Cardiff. March 8.—"Wonders and rarities of the Vegetable World," by Mr. J. Pegler, horticulturist and representative of the Newport Gardeners' M.I. Association. March 22.—Annual meeting: Election of officers, selection of a suitable place for the outing, and any other business.

NATIONAL CHRYSANTHEMUM SOCIETY.

An early exhibition of Chrysanthemums annually organised by this society was held at the Crystal Palace on Monday and Wednesday last, but owing largely no doubt to the recent damp weather, which has played havoc with chrysanthemum blooms, the display was not a good one. In several classes there were no entries, and in some only one. However, the numerous exhibits of miscellaneous hardy perennials, Dahlias, and fruit from nurseries made up for the absence of Chrysanthemums.

Messrs. J. Peed and Sons, West Norwood, were first for a group of Chrysanthemums, having plants bearing some fine ones; Mr. Robert Forster, Nunhead Cemetery, was second.

Twenty blooms (Japanese): First, Mr. James Brookes, gardener to W. T. Newman, Esq., Totteridge Park, Herts. Second, T. W. Pickett, Mrs. J. C. Neville, and J. R. Upton, all excellent blooms. Second, Mr. W. King, gardener to Warren, Esq., Waltham Cross, Herts. Mrs. T. W. Pickett and Miss Fulton were the best. Mr. Henry Perkins, The Cedars, Greenlands, Henley, was third.

Twelve blooms (Japanese): First, Mr. G. Boakes, gardener to J. Dixon, Esq., Edenhurst, Sevenoaks, with Mrs. Greenfield and Miss Fulton as the best blooms; a good second, Mr. James Brookes; third, Mr. Mark Rayment, Northenden Gardens, Romford. Mrs. G. Milham was a good show.

Six blooms (Japanese): First, Mr. A. Mackay, gardener to H. Borden Smith, Esq., Danesbury, Bengeo, Hertford, an excellent stand. Miss E. Fulton was the best bloom. Second, Mr. J. Kirkwood, gardener to E. Wormald, Esq., Park House, Finchley; third, Mr. G. Boakes.

Twelve bunches of early-flowering Pompons: First, Mr. F. Such, Maidenhead. No more entries.

Two vases of large blooms: First, Mr. J. Kirkwood, Ashley, with two handsome displays; second, Mr. James Brookes, Totteridge Park Gardens; third, Mr. G. Boakes.

Twelve bunches of early-flowering Chrysanthemums: First, Mr. Eric F. Such, Maidenhead, Yellow Marie Maasé; second, Mr. J. Kirkwood, Finchley.

Three sprays of Chrysanthemums: First, Miss C. B. Cole, Vineyard, Feltham, who used yellow and bronze varieties. No more entries.

Twelve blooms (Japanese) (amateurs): First, Mr. Mark Rayment, North Ockendon Gardens, Romford. No more entries.

Twelve bunches of early-flowering Pompons (amateurs): First, Mr. D. B. Crane, Highgate, N. (excellent); second, Mr. Taylor, East Finchley.

Six bunches of early-flowering Pompons: First, Mr. E. F. Such, Maidenhead; second, Mr. D. B. Crane; both showed well; third, Mr. J. Kirkwood.

Six bunches of early-flowering varieties, from plants grown the open: First, Mr. D. B. Crane with an excellent display. Horace Martin and Ivy Stark were perhaps the best; good second, Mr. James Brookes; third, Mr. J. Kirkwood. There was one more entry.

One vase of Japanese blooms (yellow): First, Mr. W. King, 24, Mrs. T. W. Pickett; second, Mr. H. Perkins, who showed Hon. Mrs. A. Acland.

One vase of Japanese blooms (other than white or yellow): First, Mr. J. Kirkwood; second, Mr. H. Perkins.

Vase of early-flowering Pompons: First, Mr. Eric F. Such, Maidenhead; second, Mr. D. B. Crane, Highgate; third, Mr. J. Kirkwood, Finchley.

Vase of Chrysanthemums: First, Mr. J. Kirkwood, Grass Park House Gardens, Finchley. No more entries.

Six blooms of Japanese (amateurs): First, Mr. W. H. Hall, 224, High Street, Slough; two third prizes were awarded to Mr. F. Wells, South Norwood, and Mr. W. Gooding, Edenbridge, Kent.

Sprays of Chrysanthemums (amateurs): First, Mr. D. B. Crane, Highgate, who used bronze and yellow blooms with excellent effect; second, Mrs. A. Taylor, East Finchley.

Dinner table decoration (open), Chrysanthemums: First, Miss C. B. Cole, Feltham, who used a bright yellow variety; second, Mr. D. B. Crane.

Hand basket of Chrysanthemums (open): First, Miss C. B. Cole; second, Mrs. A. Taylor.

Hand basket of garden flowers: First, Miss Cole; second, Mr. E. F. Such; third, Mrs. A. Taylor.

Hand basket of autumn foliage and berries: First, Miss Cole; second, Mrs. A. Taylor.

Hand basket of Roses: First, Mr. E. F. Such; second, Mrs. A. Taylor.

MISCELLANEOUS.

Messrs. T. S. Ware, Limited, Feltham, Middlesex, had an admirable show of seedling tuberous Begonias, cut from the open ground. Both singles and doubles were splendid in colour, size, and texture of the blooms. Messrs. Ware also had an exhibit of Cactus Dahlias in great variety. Gold medal.

Messrs. Hugh Low and Co., Enfield, exhibited a collection of hardy fruit that included some handsome dishes of Apples, particularly King of Tompkins County, Warner's King, Newton Wonder, Cox's Orange Pippin, and others. Pears Pitmarston Duchess, Duchesse d'Angoulême, and Doyenné du Comice also were finely shown. Silver-gilt medal.

Mr. Eric F. Such, Maidenhead, showed a group of miscellaneous hardy flowers. Silver medal.

Messrs. J. Cheal and Sons, Crawley, exhibited a beautiful lot of Dahlias, single Pompon and Cactus varieties. The singles were especially attractive, and included the following: Flame, gold, splashed with red; Beryl, crimson-purple, splashed with maroon; Miss Roberts, rich yellow; Princess of Wales, rich deep pink with yellow centre; and Vesuvius, bright scarlet. Messrs. Cheal also showed some dishes of Apples and Pears. Gold medal.

Mr. E. J. Jones, Bycroft Nursery, Lewisham, exhibited a splendid display of Michaelmas Daisies and early-flowering Chrysanthemums. They filled half one side of the large central hall, and constituted really an admirable bank of flowers. Gold medal.

Messrs. H. Cannell and Sons, Swanley, Kent, exhibited a group of Cannas, among them some most brilliantly coloured varieties. Messrs. Cannell also showed Chrysanthemums in vases. Gold medal.

Mr. William Angus, The Gardens, Penicuik, N.B., exhibited Chrysanthemum maximum King Edward, a large and striking flower, which has been certificated by several societies.

Messrs. William Cutbush and Son, Highgate, N., exhibited miscellaneous hardy flowers, rock plants, Dahlias, Carnations, &c., making a wonderful show of colour. Included were Phloxes, Pentstemons, Montbretias, Asters, &c. Lobelia tenuis, a small group of which was shown, was very pretty, and one of the best Carnations was a white free-blooming tree variety Mrs. S. J. Brooks. Gold medal.

Hobbies, Limited, Dereham, showed Cactus Dahlias very extensively. Many good varieties were included in the exhibit, which filled one side of the central hall. Some beautiful cut Roses were also shown. Gold medal.

Messrs. John Peed and Son, West Norwood, S.E., filled a large table, pot plants of Turnford Hall Begonia bearing an abundance of flowers, and with Begonia Mrs. Leopold de Rothschild, a variety much resembling Gloire de Lorraine. Apples were also well shown by Messrs. Peed. Gold medal.

Messrs. S. Spooner and Sons, Hounslow, exhibited a collection of hardy fruit, in which were some fine dishes of Apples Hollandbury, Pot's Seedling, Wealthy, Alfriston, Royal Jubilee, Duchess Favourite, Vicar of Beighton, and others. Gold medal.

Tomato Hanwell Victory was shown by Mr. W. Seward, The Fir, Hanwell.

The Crystal Palace gold medals (considered, we understand, to be a higher award than the National Chrysanthemum Society's gold medals) were given to Mr. Norman Davis, Framfield, Sussex, and Mr. Godfrey, Exmouth, Devon, for exhibits of Chrysanthemums.

A first-class certificate was awarded to Chrysanthemum *Renda*.—A new Japanese seedling flower, of lilac-pink colour and good depth. Shown by Mr. T. Bullimore, Canons Park Gardens, Edgware.

CHRYSANTHEMUM FEAST AT TAMWORTH.

A most successful function was carried out recently in the gardens of Bolehall House, Tamworth, Staffordshire, the residence of Mr. William Sydenham, than whom there is no keener enthusiast in the cultivation and popularising of the early-flowering Chrysanthemums. This so-called feast was in reality an occasion for demonstrating the utility of the early-flowering Chrysanthemums for both garden and other forms of decoration when used as cut flowers. Mr. Sydenham began a few years ago to interest himself in the early-flowering sorts, and his efforts took practical form when in 1901 he engaged Tamworth Town Hall for the purpose of an exhibition. How far this initial effort was successful may be judged from the results achieved. Suffice it to say, the hall and ante-room were filled to excess with a wonderful display of the early-flowering Chrysanthemums. The flowers had been grown outdoors and the sprays were not disbudbed.

The total cost of this venture, which reached a considerable figure, was borne by Mr. Sydenham, except for a few classes in which his most intimate friends had given jewellery as prizes in the decorative classes. The display was at that time acknowledged to be a splendid success. Last year the feast took place in the gardens at Bolehall House. On that occasion a capital exhibition was held in a tent in the grounds, and to add still further interest to the proceedings a trial of an immense number of both new and old varieties was open for the inspection. It was the most complete trial of these plants ever held in this country, and all who were privileged to inspect the plants readily acknowledged its useful and comprehensive character. On the present occasion, however, an effort was made to improve upon previous experiences. There were some 4,000 plants to inspect, and these embraced every variety that Mr. William Sydenham had been able to acquire. Old varieties there were in abundance, and many of these appeared under new and unfamiliar names. How these new names were acquired it would be interesting to learn, and in probing this matter deeply there is little doubt some unpleasant facts would come to light. The garden-loving public owe a debt of gratitude to Mr. Sydenham for putting things right. Every plant in flower was carefully tested and proved, and in the case of synonyms the original name was given in each instance. Such a praiseworthy effort surely demands recognition. No less than 283 varieties of the Japanese type of the flower were planted in this extensive trial, and these were supplemented by seventy-one varieties of Pompons, all distinct from one another. Only a proportion of the plants were in flower on the occasion of the feast, but of those already in bloom there was a good list. As the figures already mentioned go to prove, the Japanese sorts largely predominated, and there is little doubt that they are the more popular of the two types. The immense crop of blossoms each plant bore without any apparent strain seemed to impress the visitors.

Mr. Sydenham does not believe in disbudbing the plants, preferring rather to let them develop their growths and buds in a natural way. Contrary to what was the rule in the earlier history of these plants, when mauve, rose, and magenta shades of colour were in the ascendant, they are now represented in almost every tone of colour familiar to growers of mid-season or November flowering sorts. Warm shades undoubtedly now preponderate, and beds and

borders in which the early-flowering Chrysanthemums are grouped in colonies of a few plants in each create an effect in the dull season of which too few gardeners are aware. It is evident that we are on the threshold of great developments, and in the near future the already long list of good sorts will be considerably added to, the newer ones in several instances superseding those which at present find favour. This trial was well worth travelling a long distance to see, and for many weeks to come, unless severe frosts prevail, the plants will provide much to interest and please.

In the afternoon Mr. D. B. Crane, of Highgate, read an instructive paper on the early-flowering Chrysanthemum. The audience were seated or stood around the lawn in front of Bolehall House. The evolution of the flower, more particularly between 1886 and 1903, was dealt with. We hope soon to publish Mr. Crane's paper.

The exhibition was a pretty one, and the two displays set up in competition for the silver bowl were two of the largest and best of the kind it has been our privilege to see. The space in which exhibitors made their display was not to exceed 24 feet by 4 feet. After spending a long time in adjudicating upon them, the judges found it impossible to give either one the much-to-be-desired award of first prize. Each exhibitor had points in his display which the other had not, and when these features were considered the only conclusion to be arrived at was the award of equal first prize. Mr. W. Sydenham generously came forward with another silver bowl, and thus settled a difficulty which was apparent to all.

Mr. Robert Pemberton, Tamworth, an accomplished *bond fide* amateur gardener, had a grand table of flowers, &c. Plants in pots filled the back of the table, and numerous vases of undisbudded sprays of blossoms, all grown in the open, were splendidly grown and beautifully staged. Designs of a heart, harp, and anchor, besides numerous ladies' sprays and button-hole bouquets, completed an exhibit of which anyone might be well pleased. Messrs. Harkness and Sons, Bedale, Yorkshire, were the other successful exhibitors. This firm put up enormous bunches of bright flowers of good quality, and the variety in this instance was most pleasing and varied. We counted quite twenty-four varieties of Japanese, and the Pompon sorts were freely displayed. This was, indeed, a noble exhibit. In the class for eighteen bunches of Japanese, distinct, Messrs. G. Gibson and Co., Leeming Bar, Bedale, Yorkshire, were placed first, with large and handsome bunches of popular sorts. For twelve bunches Japanese sorts, distinct, a Lichfield amateur, Mr. Thorpe, staged a very bright exhibit. Mr. Pemberton was again placed in the premier position in the class for six bunches and three bunches of Pompons, each distinct. Vases and other decorations were set up in competition, and as adjuncts to the show added materially to its attractiveness.

Visitors to the feast were charged 1s. each, and the total of this, after a small deduction for exhibitors' expenses, was handed over to the Society for the Prevention of Cruelty to Children, an arrangement which might be followed with advantage by others.

ROYAL HORTICULTURAL SOCIETY.

List of the medals and cups awarded at the fruit and vegetable show, held at Chiswick on September 29, 30, and October 1, 1903.

DIVISION I.

Collection of nine dishes of ripe dessert fruit.—First (Velth Memorial medal and £5), the Earl of Harrington, Derby (gardener, Mr. Goodacre).

Collection of six dishes of ripe dessert fruit.—First (Williams Memorial medal and £5), J. W. Fleming, Esq., Romsey, Hants (gardener, Mr. Mitchell).

Six distinct varieties of Grapes.—First (silver cup and £5), the Earl of Harrington, Derby (gardener, Mr. Goodacre).

Collection of hardy fruit.—First (Hogg Memorial medal), Major Powell Cotton, Birchington (gardener, Mr. Cornford).

DIVISION II.

For fruit grown entirely out of doors (32 feet run of 6 feet tabling).—First (gold medal), Messrs. G. Bunyard and Co., Limited, Maidstone; second (silver-gilt Knightian medal), Messrs. J. Peed and Son, West Norwood, S.E.; third (silver Knightian medal), Mr. John Basham, Basaleigh, Mon.

For fruit grown entirely out of doors (16 feet run of 6 feet tabling).—First (Hogg Memorial medal), Mr. J. B. Colwill, Sidmouth; second (silver-gilt Knightian medal), Mr. George Mount, Canterbury; third (silver Knightian medal), Messrs. Fewtrell Bros., Hereford.

For orchard house fruit and trees.—First (gold medal), Messrs. G. Bunyard and Co., Limited, Maidstone.

DIVISION VI.—FRUIT (MISCELLANEOUS).

Home preserved or home bottled British-grown fruits.—First (gold medal), the Lady Warwick College, Studley (Warden, Miss Bradley); second (silver-gilt Knightian medal), Messrs. Austin and Co., Kingston-on-Thames.

Foreign-grown and preserved or bottled fruits.—Silver Bankian medal, Miss C. E. Martin, Auburn, New York.

DIVISION VII.—VEGETABLES.

Collection of vegetables (occupying not more than 100 square feet. Open to trade only).—First (silver-gilt Knightian medal), Messrs. R. Smith and Co., Worcester.

Collection of vegetables (occupying not more than 50 square feet. Open to trade only).—First (silver-gilt Knightian medal), Messrs. R. Veitch and Sons, Exeter; second (silver-gilt Bankian medal), Messrs. J. Cheal and Sons, Crawley; third (silver Knightian medal), Messrs. G. Bunyard and Co., Limited, Maidstone.

Collection of vegetables (occupying not more than 50 square feet, amateurs).—First (Sherwood silver cup, value £10), Lord Aldenham, Elstree (gardener, Mr. Beckett).

Collection of vegetables (occupying not more than 24 square feet, amateurs).—First (Velth Memorial medal), Lord Bolton, Basingstoke (gardener, Mr. Bowerman).

Collection of eighteen varieties of Potatoes (open to the trade only).—First (silver-gilt Knightian medal), Mr. E. W.

Green, Wisbech; second (silver-gilt Banksian), Mr. J. B. Colwill, Sidmouth; third (silver Knightian), Messrs. R. Vetch and Son, Exeter.

Collection of twelve varieties of Potatoes (amateurs): First (bronze Williams memorial medal and £2), the Earl of Lathom, Ormskirk (gardener, Mr. B. Ashton).

MISCELLANEOUS CLASS.

Gold medals.—To His Majesty the King, Windsor Castle (gardener, Mr. McKellar), for Grapes and Pine-apples; Messrs. James Vetch and Sons, Limited, Chelsea, for a collection of vegetables; Messrs. T. Rivers and Son, Sawbridgeworth, for fruit trees in pots; and Messrs. Dobbie and Co., Bothesay, N.B., for a collection of Potatoes, also for a collection of vegetables.

Silver-gilt Knightian medals.—To Messrs. Sutton and Sons, Reading, for Potatoes; and Messrs. H. Cannell and Sons, Swanley, for a collection of vegetables.

Silver Knightian medals.—To the Horticultural College, Swanley, for a collection of vegetables; Agent-General for British Columbia, Finsbury Circus, for Canadian preserved fruit; and the Marquis of Exeter, Stamford (gardener, Mr. Metcalfe), for Melons.

Silver Banksian medals.—To Mr. R. W. Green, Wisbech, for Potatoes; Messrs. J. King and Sons, Coggeshall, for Cabbages; Messrs. Harrison and Sons, Leicester, for a collection of vegetables; and Mrs. A. Bramwell, Kingsworthy, Hants, for Onions.

HORTICULTURAL SUNDRIES.

Silver Flora medal.—To Messrs. Joseph Bentley, Limited, Barrow-on-Humber, for horticultural sundries.

Silver Banksian medals.—To Messrs. W. Wood and Son, Limited, Wood Green, N., for horticultural sundries; Messrs. Corry and Co., Limited, 13, Finsbury Street, E.C., for horticultural sundries; Messrs. D. Dowell and Son, Hammer-smith, for horticultural pottery; Messrs. Fulham and Son, 71, Newman Street, W., for Fulhamite stone vases; Messrs. Chamption and Co., City Road, E.C., for tubs for shrubs; and Mr. John Pinches, Camberwell, S.E., for Acme labels.

Bronze Banksian medals.—To the Lubrose Paint Company, Moorgate Station Chambers, E.C., for horticultural paints; Messrs. Valls and Co., Coleman Street, E.C., for Beestecuts; Mr. James George Putney, S.W., for horticultural sundries; Mr. J. Cannon, Ealing, W., for fruit trees; and Mr. H. M. Hamilton, Finchley, N., for horticultural sundries.

Commendé.—To Messrs. Day and Thelland, St. Heliers, Jersey, for new packing case for fruit.

DUNDEE HORTICULTURAL SOCIETY.

THE annual meeting of this prosperous society was held in Dundee on the 2nd inst., when there was a large attendance, presided over by Ex-Bailie Macdonald, president of the society. The treasurer's statement, submitted by Mr. J. S. Ritchie, was very satisfactory, showing an income, including the balance of £506 15s. 4d. from 1902, of £1,416 9s. 5d., and an expenditure of £922 15s. 3d., leaving a credit balance of £539 14s. 2d. The prize money amounted to £280 16s. But for extraordinary expenditure the gain for the year would have been about £45 more. The following office-bearers were appointed: Hon. president, the Earl of Camperdown; president, Ex-Bailie Macdonald; vice-presidents, Lord Provost Barrie, Bailie Melville, Bailie Robertson, and Mr. J. Scott Grey; secretary, Mr. W. F. Hill; treasurer, Mr. J. S. Ritchie. Next year's show is to be held on September 1, 2, and 3, the prize money to be offered amounting to £300.

A Silver Wedding.—Mr. and Mrs. David Pringle Laird, Pinkhill, Murrayfield, have just been presented with a handsome silver lamp, on the occasion of their silver wedding, by the employees of R. B. Laird and Sons, Limited, nurserymen, Edinburgh. The presentation was made by the oldest employee, W. Deas, Mr. Laird very suitably replying. Mr. and Mrs. D. P. Laird were married at Truro, Nova Scotia, on September 30, 1878.

The Cardiff and District Chrysanthemum Society are offering for competition at their forthcoming show, to be held on November 4 and 5 next, one handsome challenge cup value £10 10s., four challenge cups value £5 5s. each, a silver-gilt medal for fruit, besides a National Chrysanthemum Society medal and certificates for blooms. Apply for schedules to Mr. H. Gillett, 66, Woodville Road, Cardiff.

Horticultural classes in Edinburgh.—A promising movement in the promotion of horticultural teaching in Edinburgh was begun on Monday last. This was the inauguration of evening classes for instruction in practical gardening by experienced gardeners, and intended mainly for young gardeners and nurserymen, but also for youths in other employments desirous of making themselves acquainted with horticulture. The classes will be held in Preston Street School, and are under the auspices of what is known as the "Fifteen" Club, an association which has in view the promotion of true technical training in subjects untouched by the Heriot-Watt College and other bodies working on similar lines. The classes for gardening will have the great advantage of being under the superintendence of Mr.

M'Hattie, the Superintendent of City Parks. This is sufficient guarantee for the thoroughly practical nature of the training, and that at the same time such subjects as botany will receive a due share of attention. Courses of practical lectures by experienced gardeners are given, and visits to the best gardens are also to form part of the programme. The duration of each course is intended to be three years. The results of this teaching cannot fail to be beneficial to the young gardeners of Edinburgh.

New England Association of Park Superintendents.—Mr. J. A. Pettigrew, Superintendent of Parks, Boston, U.S.A., who is president of the above association, writes: "It may be of interest to you to know that the park superintendents on this side of the water have an association. I send you a copy of the institution and bye-laws, also the monthly bulletin, which is circulated among the members." The fact of their being able to form an association, which evidently prospers, shows how important a body of horticulturists are American park superintendents.

A rare old Irish gentleman.—Miss Martha L. Root, special correspondent of the *Pittsburgh Dispatch*, one of the most important newspapers of this country, is now in Europe visiting its famous gardens, and through her paper here telling us all about them. In describing her visit to Howth Desmone, Ireland, she writes of the gardener there as follows: "It may be out of place to mention 'tips' in connexion with this article, but the writer wishes to say that while gatekeepers and almost every other keeper in Ireland expects the customary little gift, one cannot offer it to a fine old gardener. Though this intelligent caretaker has given us the entire morning and shown us royal hospitality, I would have as soon thought of handing a sovereign to an emperor as to offer money to that rare old Irish gentleman, the head gardener. There is something so civilising about gardening that genuine lovers of the art possess a most indescribable but charming refinement." Bless that grand old man o' Howth. While I do not know him, I am proud of him; he is a ray of the glory of our profession. —WILLIAM FALCONER, *Allegheny Cemetery, Pittsburgh, Pennsylvania.*

Interesting flowers in Greenwich Park.—I have pleasure in sending you photographs of a large bed of *Hydrangea paniculata*, *Polygonum baldschuanicum*, and a picture of a section of the mixed border in the above park. The *Hydrangeas* occupy a bed in the centre of the lake enclosure, and have attracted much attention. Most of the plants carry between twenty and thirty very fine trusses of flowers, and being planted in so large a mass have been most effective, a carpet of Pansy Blue Bell assisting the general effect wonderfully. There is, perhaps, no more beautiful flowering climber than *Polygonum baldschuanicum* (the Eastern Buchara). Originally planted here on a small tree, it made such rapid growth during the early days of May that the superintendent decided to give it something more worthy to riot over, and the Chestnut, as shown in the photograph, was placed in position, of which it has rapidly taken possession. Its cordate foliage and long racemes of creamy white flowers, which are formed in the axils of the leaves and almost entirely hide the foliage, make it one of the most beautiful and graceful climbers in cultivation. Just now the flowers are taking on a rosy tint, which makes it, if possible, more attractive than ever. The other photograph represents a section of the mixed border of perennials and annuals, which has been a blaze of colour right through the season. The public have not been slow to appreciate the changes made, and in spite of the unfavourable season the park has never known so many visitors. —GRACE BRADLEY, *Blackheath Lodge, Blackheath.* [Unfortunately, the photographs would not have made good reproductions, but we thank our correspondent heartily for sending them.—Ed.]

A novel experiment.—At the great autumn show of British-grown fruits and vegetables held last week at the Royal Horticultural Society's gardens at Chiswick, one of the finest exhibits of

fruit, consisting of nearly 200 items, was acquired by the Imperial Cold Stores of Tottenham for experimental purposes. The company's successful efforts with the storage of Hops, bulbs, and other horticultural produce ensure the best result obtainable, and the outcome of the experiment will be looked forward to with interest by all concerned in British fruit production.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor wishes to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 90, Tottenham Court Road, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Names of plants.—A. Derby.—Scrophularia nodosa variegata.—Plant from Eastbourne in box, but signature torn off.—Verbena venosa.—Emily W., King's County. 1, Linaria bipartita; 2, L. bipartita alba; 3, Lychnis diem. fl.-pl.; 4, Campanula muralis; 5, C. m. var.; 6, C. rotundifolia; 7, Myosotis scorzica; 8, Campanula capensis var.; 9, Sedum apurium roseum.—A. K.—Without flower, fruit, or a word of description it is impossible to name a specimen unless it is of a very pronounced character, which is by no means the case with that sent.

Name of fruit.—Constant Reader.—Apple Stankei Pippin.

Marrows under glass (J. F. R.).—You would find the growing of Marrows under glass in winter a complete failure.

Book on table decoration.—Mr. J. Stacey, Mellington, Fernanarworth, Cornwall, writes: "Will you kindly allow me to inform you and your correspondent that there is a book out on table decoration by William Low, and printed by Messrs. Richard Clay and Sons, London and Bungay. Mr. Low wrote this book in 1887. He was a gardener to His Grace the Duke of Grafton, Eaton Hall. I have had the book for many years; it is a very good one. I think the price is about 5s."

Pontederia cordata (R. C. D.).—With 6 inches of water covering the crown this plant is quite hardy, and especially so in your district. You may immerse it more deeply if opportunity affords. There is no period of the whole year to compare with early April for breaking up and replanting the Irises you name, and not only these but the entire flag section may be most advantageously dealt with at the same period. The vigour and apparent indifference to treatment of the latter group has caused many to regard the season as immaterial. It would, however, be easy to prove the contrary.

Pears and Apples for ornamental planting (S. C. C.).—Apples: Gasconne's Scarlet, Cox's Pomona, Peasegood's Nonsuch, Loddington Seedling, Court Peas Plat, Newton Wonder, Lane's Prince Albert, Lady Sadler, Bismarck, Beauty of Kent, Cox's Orange Pippin, and Scarlet Nonpareil. The above are quick growing and bear handsome fruits. John Downie Crab should be included. Pears for ornamental planting: Jargonelle, Catillac, Beurré d'Amélie, Pitmastron Duchesse, Louise Bonne of Jersey, Doyenné, Beurré Hardy, Clapp's Favourite, Conference, Williams' Bon Chrétien, Beurré Superfin, Marie Louise, and Doyenné du Comice. The Quince is also handsome in bloom and is fruit.

Wire fence (R. SEABROOK).—Our correspondent is desirous of covering a barbed wire fence fastened to railway sleepers, running north and south across an exposed field for a length of 800 feet, and suggests Raspberries or hybrid Raspberry and Blackberry. We presume from the position of the plantation that no special culture or care is to be given to whatever crop is planted, but that a crop of some sort is wanted that will, more or less, take care of itself and give some returns in fruit yearly. We think that our correspondent could not possibly do better than plant the Superlative Raspberry. It is a certain and heavy bearer, and the fruit is large and handsome, always commanding the top price in the market. The ground should be deeply dug and well manured before the trees are planted, and with ordinary care afterwards in keeping the surface of the ground clean, cutting the old stems away as soon as the fruit is gathered, and tying the new canes in the place of the old, and shortening them to the height of the trellis they will bear heavy crops of fruit for many years. Strong stools with three or four canes to each should be planted 3 feet apart.

CATALOGUES RECEIVED.

Fruit Trees, Plants, Shrubs, &c.—Messrs. C. R. Schilling, Winchfield, Hants.
Bulbs.—Messrs. J. B. King and Sons, Coggeshall, Essex, and Reading; T. S. Ware, Limited, Feltham.
Roses.—Mr. George Prince, Longworth, Berks.
Hardy Border Carnations.—Mr. W. A. Watts, Bromley, St. Asaph.

* * * The Yearly Subscription to THE GARDEN is: *Inside* 15s.; *Foreign*, 17s. 6d.

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[OCTOBER 17, 1903.]

LILIES IN 1903.

A MISERABLE RECORD.

CAPTAIN REID, of Yalding, Kent, whose contributions on Lilies to THE GARDEN are always welcome, sends the following interesting notes on their behaviour during the present abnormally wet and cold year:—

On the whole, Lilies did as well as most things with me this miserable year, though few of them were as good as I could have wished, and only three—*L. szovitsianum*, *L. Hansonii*, and *L. Henryi*—were above the average. Such a season as the one just over almost makes one think of giving up the attempt to grow Lilies at all; but then there is the consoling thought that other favourite flowers also were most unhappy and feeble under the distressing conditions that prevailed, and we cannot have many years like 1903, surely!

Beginning with the failures, I must with a sigh record the fact that *L. Parryi* was a most miserable spectacle, not more than fifty flowers all told, many of which never properly expanded, while the foliage was weak and discoloured, and the stems disfigured by ominous-looking brown patches significant of the dread disease. What will happen next summer I fear to think, but I have left the bulbs undisturbed in the hope that it was only the weather after all. My seedlings are doing well, and one or two sent up a flower spike carrying a single bloom; but I have not put them into their proper quarters yet.

L. Batemanniae, *L. Kramerii*, and *L. Leichtlini* were absolute failures, perhaps not entirely owing to the season. None of them seem inclined to grow here, in spite of all my care, and I am not aware that there is a "royal road" to their successful cultivation out of doors—at any rate, in this part of the British Islands.

L. longiflorum was excessively feeble, the new bulbs of the fine form *insulare*, which did so well last summer, not attempting to flower. I planted two bulbs of *L. Alexandræ* two years ago, and they have made no sign so far. I fear they have "joined the majority"; but I will not give up all hope after my experience with other Lilies in the past, though of course they must be included in the failures this year. Those that have partially failed are *L. auratum*, few blooms of which were perfect, *chalcidonicum*, *L. tigrinum*, *L. testaceum*, *excelsum*, and the various forms of *L. Martagon*, all of which were extremely disappointing, though in the case of the last-named do not attach much importance to this, as the bulbs have not long been planted, and they take some time to establish themselves. The flowers of the variety known as *L. dalmaticum* Catani were very striking, and would combine admirably in a group with those of *album*.

It is pleasing to be able to record that the following species were fairly good: *L. Browni*, one spike with three flowers; *L. rubellum*, one with four flowers; *L. candidum*, in spite of an ominous withering of the lower leaves in some cases; *L. bulbiferum*, *L. elegans*, *L. unibellatum*, *L. speciosum*, *L. canadense*, *L. giganteum* (one of four bulbs had a nice head of flowers, though the spike was rather short), and *L. sulphureum*. Two bulbs of the latter, from Mr. Wallace, which have been planted two years among shrubs in stiff loam mixed with a little peat and sand, are apparently doing well, though they grow but slowly. One of them sent up a spike about 3 feet high this year, but did not flower, though it produced a good few bulblets in the axils of the leaves. The other was more ambitious and towered up to 7 feet, high above the surrounding shrubs, where it bore a solitary sweet-smelling desirable bloom, besides affording a supply of bulblets like its companion.

Oddly enough, an enthusiastic amateur of Chicago, U.S.A., Mr. W. D. Hollis, with whom I am corresponding on the congenial topic of Lily culture, informs me that he has also two bulbs of this fine Lily, one of which only has bloomed this year, and has, like mine, produced a solitary flower! But we both have great hopes for the future, and as my friend (I take the liberty of calling him so, though we have never met and our gardens are thousands of miles apart, for are not all lovers of the flowers, especially of one particular kind, bound to be friends?) appears to be, like myself, a devout worshipper of the goddess Liliūm, and, moreover, is the fortunate possessor of an ideal Lily soil, he is more than likely to be successful with this fine species. I may mention that I was first induced to try it by the short but interesting paper on its growth and culture at Naini Tal, North-West Provinces of India, read before the Lily conference at Chiswick in 1901, and included in the pages of the Royal Horticultural Society's Journal for December of that year.

From what I can gather, the secret of its successful cultivation may be expressed, as in the case of other Indian or Burmese Lilies, in the words "shaded roots and sunny flowers." To how many Lilies, now either being roasted in a hot, sunny border or languishing in gloomy obscurity, do these same words perhaps apply! I sincerely hope that a good trial may be given, in any case, to *L. sulphureum*, or *wallichianum* superbum as it was formerly called.

To proceed with my own record, already, I fear, much too long. Three species acquitted themselves in such a way as to deserve the letter "g." after their names, while only another trio were deemed worthy of a "v.g." Good may certainly apply to *L. croceum* (a fine reliable old sort), *L. pardalinum*, and *L. Grayi*; this last seems to be a very satisfactory Lily, and should be tried by all growers; the growth is elegant, and the flowers, though rather small, are of a very pleasing colour.

The "v.g.'s," which did much to cheer one at various periods of despondency, were *L. szovitsianum*, the old-established bulbe of which again flowered grandly; *L. Henryi*, always good and reliable, and which improved much on its last year's form; and last, not least, the invaluable *L. Hansonii*. My two bulbs, which last year bloomed very fairly on spikes about 3 feet high, shot up to 6 feet this time, jealous perhaps of some adjacent branching stems of *L. speciosum* Melpomene, which had hitherto overtopped them, and they carried fine heads of flowers, one with sixteen, the other with fourteen blooms. I may mention that they are in a sheltered border facing west, the bulbs covered with a dense growth of *Anemone japonica*.

And now I think, having touched on nearly every species I possess, I will conclude this long story with the heartfelt wish that I may have a better account to give of my favourites in 1904. We know that hope springs eternal in the human breast, but also that hope, handicapped by unfavourable weather, will not ensure success with Lilies.

THE EDITOR'S TABLE.

We invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London.

EUCALYPTUS GUNNI.—AN OFFER.

Mrs. Alfred R. Wallace sends from the Old Orchard, Broadstone, Wimborne, "a young *Eucalyptus Gunni* raised from seed of the tree described in THE GARDEN of January 25, 1902." Having a large number of similar seedlings, Mrs. Wallace would be glad to send one or two to any readers of THE GARDEN who may wish to grow them and will send Mrs. Wallace a stamped and addressed envelope. They are perfectly hardy, the tree being now fifteen years old. We well remember the tree of which Mrs. Wallace writes, and the account of it by Dr. Wallace in the number referred to should be read by all interested in *Eucalypti*.

MISTLETOE.

Mr. W. Herbert Smith, Pelam House, Sherburn Road, Durham, writes: "Some months ago one of your correspondents enquired about Mistletoe. I enclose a twig cut from a bunch growing on an Apple tree; this is the result of sowing two berries in a T incision in the bark of the Apple tree about four years ago.

THE SHASTA DAISY.

Mr. Smith also sends specimens of this much-vaunted flower; it is large, of the purest white,

and distinct, but there are many forms of the common *Chrysanthemum Leucanthemum*, of which this is one, like it. Our correspondent sends the covering of the seed packet, and the following are the instructions as to sowing, which may be helpful to those who have seed of the flower: "The originator, Mr. Luther Burbank, describes it as follows: 'Flowers snowiest white, with yellow centre, extremely large and graceful, freely produced on strong, wiry stems about 2 feet in length. New hardy perennial, blooming abundantly the first season from seed.' Sow early in shallow, well-enriched boxes of sandy soil in the house, keeping quite moist; transplant to a rich, sunny location about 1 foot by 3 feet apart, or sow in carefully prepared soil in the open air as soon as the ground can be cultivated. These seeds will produce flowers varying much in form and size, and, being a new hybrid race, some exquisite ones may be expected. The best may then be multiplied to any extent by division."

RHODODENDRON NOBLEANUM.

Mr. Major sends from Lamellen, St. Tudy, R.S.O., Cornwall, flowers of the beautiful *R. nobleanum* with the following note: "I enclose three blooms of *R. nobleanum* for your table. It is a shrub which deserves more general cultivation owing to its habit of flowering through the autumn and winter. I picked the first flower this autumn on September 8, and generally gather some on or about Christmas Day. Being a hybrid between *R. arboreum* and *R. caucasicum* it is fairly hardy, but should have a sheltered situation, because of its season of flowering. I may mention a fact which may be of interest. Having frequently noticed small ragged holes at the base of the corolla I tried to find out by what agency they were caused. After watching I found that they were made by the great tit (*Parus major*), presumably to get at the drop of honey at the bottom of the flower."

FERNS FROM IRELAND.

Mr. R. B. O'Kelly, Glensaera House, Ballyvaughan, County Clare, sends a very interesting series of hardy Ferns, as follows:

Variegated Hart's-tongue.—This is *Scolopendrium vulgare variegatum Willisonii*, originally found wild in North Yorkshire; a plain frond of normal dimensions, variegated yellow. There are also *S. v. v. Elworthii* and *S. v. v. Claphami*, both of which are variegated with pure white.

Polypodium vulgare serrulatum.—Originally found in Devonshire by Mr. Wollaston and Mr. Hillmann, and also near Malton by Mr. C. Monkman, generally growing on trunks of trees.

Adiantum Capillus veneris incisum.—Originally found at Ballyryan, County Clare, by Dr. Allchin, and also at Menstone Bay by Mr. E. Newman, and in Guernsey by Mr. J. James. There is no reason why it should not occur also on the Burren Mountains.

Another Fern was given as *Polypodium vulgare serrulatum robustum* (O'Kelly). This form is unknown to us, neither can we find it in any book. It has all the appearances of a gigantic form of *Polypodium vulgare serrulatum*, and therefore the name is appropriate.

One Fern is given as the "French Maiden-hair," which is a wrong appellation. On the market and with the florist's decorators it is commonly known as "the French Fern," not as the "French Maiden-hair," which name has no doubt been given to it on account of the enormous quantities brought weekly to our markets from the western parts of France, principally from Brittany, where it grows abundantly. But it is also found very plentifully in Cornwall, Devonshire, Ireland, Hampshire, and Somerset growing at the foot of trees, on old walls, and in disused quarries. It is *Asplenium Adiantum-nigrum*, popularly known as the Black Maiden-hair Spleenwort, and is very variable, several forms crested, incised, and variegated being very distinct. Mr. Neill Fraser of Edinburgh, in a printed list of his collection published in 1865, enumerates no less than twenty-six forms, many of which are not to be found to-day.

Mr. O'Kelly sends a Fern under the name of *Ceterach crispum majus*, but this is unknown to us. We cannot find it in any book. It is exactly the same form as *Ceterach* or *Asplenium Ceterach crenatum* of Moore (*sinnatum* of Kinahan), originally found in County Clare by Dr. Allchin, at Waterford by Mr. J. R. Kinahan, at Blackhead and Galway by Mr. R. Barrington, and in several other counties in England and in Scotland by Messrs. E. J. Lowe, R. Barrington, R. J. Gray, W. G. Johnstone, and others.

A Fern labelled No. 7 is probably *Asplenium Adiantum nigrum obtusatum*, which was originally found in Ireland—in Antrim and at Newtown Castle, but also in Scotland, as well as in Kent, at Torquay, and near Nottingham. The frond received was too much shrivelled for us to be able to identify it.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 22.—Complimentary Dinner and Presentation of Testimonial to Mr. Latham, late Curator of the Birmingham Botanic Gardens.

October 27.—Royal Horticultural Society's Drill Hall Meeting; Annual Dinner of the United Horticultural Benefit and Provident Society, Holborn Restaurant.

November 4.—Ascot, Sunninghill, and District Chrysanthemum Show, at Ascot (two days).

November 11 and 12.—The Liverpool Horticultural Association's Chrysanthemum and Fruit Show.

National Rose Society.—At a recent committee meeting of this society it was announced that through the kindness of the Earl of Ilchester and the courtesy of the Royal Horticultural Society the date of the Holland Park show will be July 12 and 13, not July 6, originally fixed by the National Rose Society, whose annual show, therefore, will take place on the last-mentioned date in the Temple Gardens. The Royal Horticultural Society will co-operate with the National Rose Society in holding a Rose show in the new Hall on September 20 next. This is good news. We have constantly urged the importance of an exhibition in September. Ninety-six new members have been recently enrolled. The society has certainly progressed since it has held its annual shows in the Temple Gardens. There will be a small profit this year without calling upon the guarantors. No provincial exhibitions will take place next year. We are very glad to hear that the society contemplate reprinting and republishing the excellent "Hints on Planting Roses," bringing it up to date, and another little treatise is suggested, namely, "Pruning Roses." We shall welcome this.

A bulb planter.—In your issue of the 3rd inst. we see that on page 248 appears a notice of our bulb planter, and, by a curious coincidence, on page 244, in an article by Mr. W. A. Watts, there is described an almost identical tool. We are sure that Mr. Watts is unaware of the fact that we have had this tool on sale for some years, and that by our registration of the design we have the sole right to manufacture such an instrument. We shall esteem it a favour if you will kindly make a note of this in your valuable paper.—BARR AND SONS, King Street, Covent Garden, London, Oct. 7.

New Plum President.—Trees of this beautiful new Plum were staged in splendid condition by Messrs. Rivers of Sawbridgeworth at the great fruit show held recently at Chiswick. The fruits are large, oval, and of a deep purple, well covered with a bluish bloom, and a free-stone; its flavour is sweet and rich for a cooking fruit. I note in some cases that this has been considered a good dessert Plum, but the raisers, Messrs. Rivers, though they say it is sweet and rich, class it as a cooking or kitchen fruit. It is not, however, inferior for dessert when well grown. The fruits at Chiswick were excellent and fit for any dessert, and the trees referred to above were laden with

fruit, thus showing its excellent cropping qualities. This new fruit was given a first-class certificate on October 10, 1900, and the raisers state it is a splendid cropper. Its season is October, and it is even later than Monarch, which is a valuable late September fruit. Evidently it is a good pot tree, and grown thus it fruits well; the wood is short-jointed, and the growth compact. For wall culture it should prove a valuable addition to the late Plums, as it keeps well when gathered, and if left as late as possible on the trees is not inferior for dessert.—G. W.

New Plum Late Orange (Rivers). One of the best late Plums is undoubtedly the Late Orange, one of the many seedlings raised at the Sawbridgeworth nurseries a few years ago, and given a first class certificate by the Royal Horticultural Society. There can be no question that Plums as late as this variety if of good quality are most valuable, and these varieties keep good for some time after they are gathered if stored thinly on shelves in a cool room. The fruits of this variety are roundish, bright orange in colour, and covered with a heavy bloom; the flesh is firm, but rich and juicy, and it is a free-stone in addition, and in season during October. In the south law ripe fruits from a warm wall late in September, but for later supplies I would advise growing this variety on a cooler site. Grown thus it gives fruit of good quality when others are over. Messrs. Rivers staged some fine baskets of this Plum at Chiswick on the 29th ult., which were much admired. This Plum is noted for its cropping, but to do it justice should have wall culture, as grown thus it is a most valuable addition to the dessert fruits at this season.—G. WYTHES.

Wonderful Potatoes.—If we are to believe all the yarns concerning some new varieties of Potatoes that find their way into the newspapers, we should with equal readiness believe the story of Jack and the Bean-stalk. Readers of these stories, and sometimes believers in them, should endeavour to remember that they are the result of the strong and far from disinterested imaginations of those who, holding stocks of these wonders, want to sell at a vastly enhanced price. Special mention is made of a variety named Eldorado, a suspicious title. How many rushing is haste to find their Eldorados have found misery! A Potato with so attractive a name may be a very good one, but far from being a marvel, and even "Stars," whether Northern or otherwise, may, after all the booming so freely lavished upon them, be but minor stars. Those who may think that they see fortunes looming large in Potatoes that have been thus lavishly lauded should look up Potato history. If they did they would find that some years ago prices that were regarded as almost outrageous were paid one season for newly introduced Americans, and the following year or so they could hardly be sold at any price. We have had no Potato that so well merited a high price—and yet when put into commerce by Messrs. Sutton and Sons it was offered comparatively cheap—as the famous old Magnum Bonum. It was a grand Potato, and its introduction did more to save our Potato breadths from extinction than any other since introduced. Besides doing that it has given us a splendid progeny, and nine-tenths of the robust and comparatively disease-resisting varieties of to-day have come from Magnum Bonum. The present year has shown us that still our great need is for good robust disease resisters. Apart from the weakened, almost miserable growth that has characterised Potato breadths so largely, there is a great deal of disease in the tubers of comparatively robust varieties, far more than is, I fear, generally believed, but which only the knife can fully exhibit. This fact renders it more than ever incumbent that we should raise and should as widely as possible cultivate good robust growers and real disease resisters. I do not care where these come from, only let us have them in plenty. The three great Potatoes so far as knowledge and reputation go just now are the English Discovery, the Scotch Northern Star, and the Irish Maid of Cal. May all three be universally grown and tested together next year, and may all prove to be our Potato growers' salvation.—A. DEAN.

Kniphofia Burchelli.—Although introduced from South Africa upwards of eighty years ago, this fine species is not used to the best advantage. As a perpetual bloomer for massing in the herbaceous border I find it an extremely valuable plant. The colouring of the flowers is not so gorgeous as *K. aloides* and several others, but the mixture of scarlet and yellow shading down to green is pleasing, added to which it pushes up its spikes from May right on through the summer till cut down by hard frost. *K. Nelsoni* is a gem for the rockery when it is planted in groups on the higher and bolder parts. Quite small tufts are now throwing up ten to twelve good spikes 1½ feet to 2 feet high. The individual flowers, which are not so densely crowded together as in some others, are of a beautiful soft red colour. Coming into flower when the rock garden is none too gay, its value is greatly enhanced as a rock plant for September and early October.—F. C. TRIBBLE, *The Gardens, Apperley Court, Gloucester.*

Thunbergia grandiflora.—The genus *Thunbergia* contains many beautiful climbing plants, some of which are suitable only for large structures, while others may be grown in a more limited space. One of the best of the strong-growing kinds is *T. grandiflora*, a vigorous climber, which is suitable for clothing the roof of a large and lofty structure, as under this treatment it not only flowers freely but it also provides a certain amount of shade for the benefit of the plants underneath. The foliage is very pleasing, and about 6 inches long, while the flowers, which are quite 4 inches across, of a pale blue, lined with a deeper tint, with the interior of the throat almost white. Its season of blooming is during the autumn and early winter months. It is a native of India, where it forms one of the commonest of climbing plants. There is a variety—*alba*—which, except in the colour of its blossoms, is a counterpart of the type. It is at present little known. Like most members of the genus, *T. grandiflora* is easily grown and propagated, its principal requirements being plenty of head room and sunshine, for if confined within narrow limits or heavily shaded leaves, not flowers, will be the result.—T.

Episcia fulgida.—This showy-flowered Gesneriad may, in common with the nearly allied species, be with advantage treated as a basket plant, both foliage and flowers being well displayed under such conditions, but grown in a 5-inch pot, with the side shoots removed, it forms a Gloxinia-like plant now full of flowers. The leaves, which are roundish oblong in shape, from 6 inches to 8 inches long, have their surface puckered and are deep metallic green in colour, with the midrib and principal veins of a silvery whiteness, these last standing out conspicuously against the darkened surface of the rest of the leaf. The flowers themselves, borne on rather long stalks, are tubular in shape, with the five-lobed expanded mouth a little more than an inch across, and of a very pleasing shade of bright rosy scarlet. In common with many members of the same order a succession of flowers is kept up for a considerable time. This *Episcia* was introduced from Columbia thirty years ago, so that it is by no means new in gardens. Before its discovery the late Dr. Berthold Seemann was the means of introducing *Episcia chontalensis* from Nigarauga in the year 1867. In this the flowers are lilac, with a yellowish centre. Given stove treatment these plants are of very easy propagation and culture. Though now included in the genus *Episcia*, they were first distributed and are generally known by the generic name of *Cyrtodeira*.—H. P.

Nepenthes ventricosa.—Few *Nepenthes* are more distinct than this, which is a native of the Philippines. In the first place the shape of the pitcher is striking, broad at both ends it gradually tapers until in the middle it is quite narrow; its colour is clear pale green with a red margin to the mouth. The leaves are narrow, short, and of good substance, quite leathery to the touch. They are a good green colour with a pale mid-rib. The culture of *Nepenthes* has sadly fallen off during late years, but if anything can be done to encourage their reappearance in gardens, such species as *N. ventricosa* would do so. It is an ornament to

any plant stove. I believe this *Nepenthes* was introduced to cultivation through the Royal Gardens, Kew.

Kleinia Galpini.—Many a cool house would be the brighter at the present time for the inclusion of a few plants of the South African *Kleinia Galpini*. It has narrow fleshy leaves about 3 inches long by half an inch wide, and bears small heads of orange-coloured flowers. Plants remain in bloom for quite two months, and that is more than can be said for many greenhouse flowers of autumn. *Kleinia Galpini* may be propagated by cuttings without difficulty.

Stenoglottis longifolia.—"They grow like Daisies," such was a remark made to me recently by an Orchid grower who cultivates the *Stenoglottis* very successfully. Whether everyone finds this to be the case is perhaps doubtful. However, they are certainly not difficult of culture, and no one with a greenhouse that can be heated on a frosty night need fail to grow them well. The small Orchid grower is usually very conservative, and restricts his skill to the culture of some half-dozen sorts. This is rather a pity, for there are others that he might grow equally well, and *Stenoglottis longifolia* is one of them. It is a terrestrial Orchid, that is to say, it derives its nourishment from soil alone, and a native of South Africa. Small pots or pans and a mixture of loam and leaf-mould are best suited to its culture. If the latter are used several plants must be placed together. Less water is required during winter than when growth is active, but it must not be altogether withheld. This Orchid is of robust growth, and when in good health bears erect racemes of flowers 18 inches to 2 feet high. In colour the latter are light purple. They are freely produced, and if a number of plants are grown a pretty group of them can be arranged. The variety *alba* is also worth growing to place among plants of the type, and splendens, also a variety of *longifolia*, has rose-purple flowers and is of unusually robust growth.—A. P. H.

TREES AND SHRUBS.

LABURNUM CARAMANICUM.

NO more striking example can be imagined of two species of one genus of hardy shrubs differing to such a marked degree from each other as this species and our well-known friend *Laburnum vulgare*, for in the latter case good-sized trees are formed which bear dense, axillary, pendulous racemes of golden flowers during late spring, while the latter is only a loose-growing shrub a few feet high, with small, ternate, *Cytisus*-like leaves and large, loose, terminal panicles of yellow flowers, which are borne during late autumn, October being the month in which the flowers are at their best. It is a rare as well as an interesting shrub, and has been in cultivation since 1879. It is a native of Asia Minor, and makes a few long branches, rather stiff in texture. The flowers, as previously stated, are yellow and in upright terminal inflorescences. The plant is not in general cultivation, though it is to be found mentioned occasionally in catalogues. It likes good loam, and may be grown in a similar manner to most of the *Cytisus*.

THE SPINDLE TREE.

THOUGH for the greater part of the year the Spindle Tree (*Euonymus europæus*) cannot be said to be at all ornamental, it is very showy when smothered with ripe fruit in autumn, and the leaves change to deep red before they fall, while for certain positions it is also worth growing as a specimen bush. In some parts of the country it is a common shrub in hedgerows, where it is usually grown as a bush 6 feet to 12 feet high. When in gardens, however, the cultivation and perhaps better soil have a beneficial effect, and it grows upwards of 20 feet in height, making a small tree. The leaves are more or less ovate, and of no special interest except when brightly coloured in autumn.

The flowers are small, green, and inconspicuous, and are usually followed by a good display of fruit. When ripe, the capsules are deep rose or reddish colour, and as they open disclose the orange-coloured seeds within, the two colours forming a striking contrast. In addition to the type there are a number of varieties differing either in the colour of their leaves or their fruit. *E. e. var. atropurpureus* has purplish leaves, *E. e. aucubefolius* cream variegated leaves, fructu-albo white fruits, fructu-violacea violet fruits, and so on. As the Spindle Tree does not require any particular care, it grows well in a variety of soils, fruits freely in most seasons, and is inexpensive; it is excellent for plantations and other places where a bright touch of colour is required in autumn.

CLEMATIS GRATA.

IN many respects this species bears a strong resemblance to *C. Vitalba*, the Traveller's Joy of our hedgerows, to the American *C. virginiana*, and to one or two others which form a distinct set, and are all autumn flowering. Of the set, it is by far the most ornamental and distinct, while it is also the most uncommon. Loudon mentions it as flowering in the Physic Garden at Chelsea as long ago as 1833, but very few appear to have the true thing. At Kew a mass of it may be seen in the Clematis collection. As in the case of the other climbing species and varieties, it has a number of rough Oak branches to ramble over, and so forms a picturesque and informal mass. It is easily distinguished from surrounding species by its large deep green leaves. These are pinnate, and have five leaflets each, the leaflets being ovate and acuminate, and slightly hairy. The upper half of each leaflet is serrated, the lower half being entire. The flowers appear during September and October, and are in large, loose, axillary inflorescences, some of which are 18 inches or more long. The flowers are an inch or so across, the sepals being four in number and very narrow, purplish on the outside and white within. The stamens are numerous, half an inch long and white, and these form the showy part of the flower. It is a Himalayan species, and is said to have been introduced in 1831. For covering a rough fence or for growing on tree branches 12 feet or so high it is excellent, and is well worth a trial in gardens where it does not exist at present.

W. DALLIMORE.

RHODODENDRONS AND THE SEASON.

THE present year has proved to be a record one in the extent and quantity of the rainfall, and complaints are general of its ruinous effect on crops of every description, especially those on low-lying and heavy lands. Here on our dry, sandy peat we have not suffered at all from the excessive rains; on the contrary, the greater part of our stock has done much better this season than it has for some years past, *Rhododendrons* especially having made long, stout growths, which have ripened up much better than was expected; the buds are also more numerous than appeared likely at one time. On the drier ground the *Rhododendrons* have set buds extremely well, but in the low-lying and wetter ground they are not so prominent. The series of frosts experienced in April badly cut some of the earlier sorts in the low ground, and these, though they have made good growths, have not set buds at all well. In addition to the flower-buds being out, the young shoots which were just on the move were blackened and spoilt, and consequently the plants had to grow from later and weaker buds, which have not developed sufficiently to form flower-buds in such quantity as would otherwise have been the case. On the whole, however, the set of flower-buds this year has been an agreeable surprise, as, up to the middle of August it looked as if there would be a great scarcity of buds all round, but it has luckily turned out to be well over the average, and certainly far above our expectations. The season has been an ideal one for the planting out of the young stock, about 30,000 of which were put out at the end of July, and are now looking uncommonly well and fit to stand the winter. Other classes of plants have also done

well, Yews, Hollies, and Coniferæ especially, the majority of which have made as much growth this year as they usually do in two average ones; but I have heard several complaints of how badly these have done this year, especially on heavy clay lands or in low-lying districts.

Bagshot, Surrey.

J. CLARK.

AN ARTIST'S NOTE-BOOK.

NYMPHÆA GEORGE HUSTER.

SO far as we know this Nymphaea has flowered in three gardens only in Britain, namely, Gunnersbury House Gardens, Royal Gardens, Kew, and Cherkeley Court Gardens, near Leatherhead. Our drawing was

made from a plant growing in Mr. Leopold de Rothschild's garden at Gunnersbury. The flowers are very beautiful, rich rose coloured, and a tinge of purple is noticeable also. They open at night and close early in the morning.

If, however, they are cut while open and placed in water they do not close, and will last for several days. This Nymphaea is a hybrid raised by Mr. Dreer, Philadelphia, U.S.A., and flowered this year for the first time in this country. It was shown before the Royal Horticultural Society recently, but no award was made to it, probably because the flowers shown were not at their best. It is safe to predict, however, that its beauty and value will, before long, be recognised. The leaves are round and about 18 inches in diameter. It grows and flowers freely. Mr. James Hudson has had it in flower for the past two months at Gunnersbury. A heated tank is necessary for its successful culture, but the lovely flowers are a generous reward.

DISEASE - RESISTING POTATOES.

THE Potato crop in the south-west of Scotland has been on the whole rather under the average this year. No crop is more sensitive to bad weather conditions than the Potato, and the season we have just passed through has been about as bad as it could well be. Spring frosts retarded early growth, and during the summer months the want of sunshine and excessive rains hindered the full development of field and garden crops alike, so that, speaking generally, the yield all over, both in quantity and quality, is undoubtedly under the usual standard. Early varieties have given the best results, and in most cases were comparatively free from disease. Large growers in this district do not complain of the early liftings, and, though quite ten days late in getting into the

market, prices were favourable. But, as was to be expected after such a wet season, main crop and late varieties are under the average in size and badly diseased. The notion of any one variety being absolutely disease-proof under all conditions is misleading. In practice we find that the best remedy is to select clean, well-matured tubers. These, combined with good cultivation, change of seed, and change of situation, will repay large and small growers. Early varieties that find much favour in this district are Sutton's Ninety-fold, May Queen, and the same may be said of Early Puritan, Harbinger, Ringleader, and English Beauty, a variety that well deserves consideration. With us a good strain of the old Ashleaf Kidney still holds a place among the best early varieties where really good quality is a consideration. Among the late sorts we favour Veitch's Maincrop, British Queen, Longworthy, Magnum Bonum, Up-to-date, Reliance, Discovery, Schoolmaster, Satisfaction, and Abundance. We grow one or two other varieties, but cannot

which is in its leafage quite disease-resisting. Some may be less readily affected in the tips than others, but all succumb finally. It is rather absurd to write of a variety as disease-proof because it has been grown only two years. Plenty of varieties have been put into commerce that seemed to be disease-proof for five years, and then failed. I fear the term "disease-resisting" must ever be but a relative one. None is absolutely such.—A. DEAN.

ALTHOUGH we have had a bad season the Potato crop has been wonderfully free from disease in this district. Of all the varieties we cultivate in the gardens here I would give preference, taking quality and good cropping into consideration, to Sutton's Abundance. The only way to avoid disease in Potatoes is to continue hybridising and produce new varieties worthy of cultivation. For a few years seedlings do well and keep quite free from disease. Take The Champion for an example. For years there was no better Potato in cultivation, and now it is very little grown.—DAVID MURRAY, *Culzean Garden, Maybole, N.B.*

HAVING been engaged for the past two weeks in inspecting the crops of various Potatoes, I have noticed most carefully the deep-seated cause of the worst diseased sorts. One batch was planted in land in which a large number of old Brussels Sprouts

stems had been buried, and at the time of lifting had not thoroughly decayed, the consequence of this being that they were simply swarming with the little white maggots often met with. I noticed, too, that in cases where the manure had not been properly shaken out by the fork,



NIGHT-FLOWERING NYMPHÆA (N. GEORGE HUSTER). (Half natural size.)

as yet write of them from experience.—JOHN MACKINNON, *Terregles Gardens, Dumfries, N.B.*

As soon as lifting is sufficiently advanced to enable me to say which varieties are best I will write you again. We are growing several varieties new to me this season, some of which are good and others not worth culture. Denbigh Castle is the worst of them all.—JOHN DUNN, *Royal Kitchen Garden, Windsor.*

I NOTICE that a correspondent invites readers of THE GARDEN to give their experience of the disease-resisting qualities of varieties of Potatoes they may grow. I strongly advise all so disposed to wait before they commit themselves to opinions too hastily. I have found already this season that many tubers apparently perfectly sound when lifted have, either later or else when peeled for cooking, shown grave evidence of disease. If replies are held over until Christmas, then they may be assumed to have a fairly safe basis. Let it be clearly understood that there is no variety existing

but had been allowed to remain in lumps, that the disease was worse. The summer has been a deluge almost, and at the present time growth is a mass of decayed rotten stems. I have ever been an advocate of more room between the rows, and this year I am more than ever convinced of the necessity of this. Allow light and air to penetrate between the rows and you get a more sturdy growth, better tubers, and a far heavier crop with a minimum of disease.—A. B., *Liverpool.*

THIS has been an exceptionally wet summer, and I am sorry to say the autumn continues the same, which is having a serious effect upon the Potato crop. In this district—that is, North Lincolnshire—Potatoes never looked better and more promising up to the beginning of August, when there were no signs of disease; but now whole crops are practically destroyed in low-lying districts. The result is that many of the late varieties we used to depend upon are fast dying out. A somewhat new variety is coming to the front, The Factor, which hail

from Scotland; it is a good cropper, and resists, in a great measure, the bad influence of the wet weather. The three most popular Potatoes at present are King Edward the Seventh, Evergood, and Northern Star, and all are said to resist the baneful disease. The latter variety has caused quite a sensation here, and although very dear its cultivation is increasing. — J. GARDNER, *Elsham Hall Gardens, Lincoln.*

THE FLOWER GARDEN.

THE GLADIOLUS.

(Continued from page 253.)

DOWN here in the south-east of England I like to begin planting as soon after the middle of February as the soil will allow, commencing with the Lemoinei, and complete planting by the first week in May. The corms are put in 5 inches deep in beds 4 feet wide, with 2 feet between the beds, the number of rows in each bed depending on the size of the corms, but for convenience in staking, weeding, and getting among the plants when in bloom 12 inches apart each way between the large corms should be allowed.

I wish I could speak with experience as to the date for planting in the north, but I do believe in as early planting as possible. A great deal depends on the drainage of the sub-soil, but Gladioli will stand a lot of cold if the soil is not wet and stodgy, provided well ripened corms, which have been kept very cool all the winter, are put in. North country growers should, however, always stick to early-flowering varieties in each section.

Staking with 4 feet or 5 feet bamboos when the tops appear, keeping the top inch of soil loose and clean, releasing the spikes from the sheaths when the bracts of the flowers get caught just as they emerge, and keeping a look out for caterpillars in the opening buds, are the chief cultural details during the season.

In late October and November lifting should be done regardless of the degree of maturity of the foliage, though naturally one would lift the yellow-leaved plants before those still in active growth. A mild rainy November will often start the corms re-rooting, though the tops may still be quite green. A dry day should be chosen, the plants lifted entire, the labels tied on, and the whole batch spread out in single layers in a dry shed to mature. Protection must be given against actual frost. The tops when dead should be cut off close to the new corm, and the old defunct corm below, with its withered roots, separated by a sharp pull, when, if the new corm is mature, a clean dry scar is left, a natural line of separation between the two corms having been naturally effected by the formation of a few layers of brittle cork cells during the drying process.

The offsets or spawn, if to be preserved for increasing the stock, should be put into a small paper bag and labelled. Offsets attached firmly to the corm when lifting are best left on till cleaning up takes place. The number and size

of these offsets vary much; often the most beautiful varieties yield none, while rubbishy plants may yield dozens. While out of the ground the corms should be kept as dry and cool as possible. When dry they will bear safely several degrees of frost, but in a damp store-house immature ones get mouldy and rot and mature ones root prematurely. If loose, then shallow wooden boxes where the corms can be spread in single layers are the best receptacles. As regards

DISEASES there are several fungoid parasites; one quite common in this country appears on the leaves during the summer as brown spots. Sometimes the plant grows through the attack, but often the spotted area spreads, the leaves turn yellow, and the whole plant dies. On lifting in the autumn the corm is found to be either a rotten mass or else spotted with what I believe is the resting stage of the fungus. I find that, except in severe cases, if the spots are picked out with the point of a knife and the wound dusted with a mixture of equal parts of quicklime and sulphur the corm grows away in the spring, and often a choice variety is saved in this way.



ROSES AND SUMMER BEDS AT GIRTON COLLEGE, CAMBRIDGE.

The best preventive (cure there is none so far) is to grow the plants on a fresh site if possible every year, and clean the old sites with a crop of, say, Cauliflower or early Potatoes; at least, such has been my experience. Wireworm and the daddy grub or leather jacket when troublesome must be trapped in the usual way with a few bits of Rape cake attached to a piece of copper wire and just buried in the soil. Gladioli may be raised from

SEED by anyone having the patience to wait two or three years for a spike of bloom. Both seed and spawn are best sown outdoors under hand lights in April, covering with an inch of gritty soil. The resulting cormlets need identical treatment to the large corms, only they can be planted much more thickly and only 2 inches deep their second year. Seed can be bought or saved by one's self if artificial pollinating be performed, cultivation having enlarged the parts of the flower to such an extent that it is rare to get a capsule from flowers left entirely to the visits of insects. I give now a

SELECTION OF GOOD VARIETIES which can

be bought at a reasonable figure, and which I have had an opportunity of proving:

Reds.	Roses.	Whites.
Grand Rouge	Glaire de Feu	Hilda (Burrell)
L'Incendie	Mme. Polret	Dora Craven
Prof. Maxime	Pyramide	(Burrell)
Cornu	Pasteur	Cygnat (Burrell)
Iona (Burrell)	Lilley	Shakespeare
Martial (Burrell)	Opale	
Bizarre vars.		
Comedy (Burrell)		Diademe
Hesperide		Bernice (Burrell)
Parure		Caillida
Amitie		R. Milner (Kelway)
		Rajah

This is, of course, a very incomplete list of the finest varieties. It only pretends to give two dozen, which average not more than 10d. each. None are more than 2s., and some 5d. and 6d., but all are very beautiful.

Thanet.

W. C. BULL.

A GARDEN AT GIRTON, CAMBRIDGE.

THAT a garden is the purest of all human pleasures has never been more truly exemplified than in the case of the garden of which a corner is here shown. Some thirty years ago a great pasture field with hedgerow trees was all that met the eye of the student who looked out from the new college of Girton, and the austerity was perhaps in keeping with the beginnings of a new movement. The student of to-day approaches the building with its many creepers along a drive of Limes and Chestnuts already old enough to be imposing. On either side extensive lawns that show a vivid green against velvet clumps of Pines are skirted by a wild woodland path bordered by trees in every stage of growth, from the original hedgerow Elms and Oaks down to the latest variety of flowering shrub. This path, which runs round the entire property, some 33 acres in extent, encircles the golf course, vegetable gardens, and orchards, the pond with its swans and coots, the hockey field, and a fine avenue of young Wych Elms, one of the back approaches of the college. Thanks to the gardening skill of the mistress, Miss Welch, what was once the wilderness blossoms like the Rose, from the moment when the first Aconite shows its welcome head, through the long series of annuals and perennials—Rose, Carnation, Gentian, Shirley Poppy—everywhere masses of blazing colour and fragrant scent, until autumn with hardy Chrysanthemum and Michaelmas Daisy gives warning of the bleak moment when alone the Jasmine blooms in a golden shower, defying the winter. And so year in year out this garden is never without some sign of grace to entitle it to the high place it holds in the happy associations of students of the college.

E. E. CONSTANCE JONES.

Girton College, Cambridge.

FLOWERS IN PARK LANE, HYDE PARK.

THIS has been a most unfavourable season for bedding arrangements, but still the display in Park Lane on the whole has been satisfactory. Some good beds noted on a recent visit are worthy of mention. The bright mauve-purple Heliotrope President Garfield with Ivy-leaved Pelargonium Mme. Crousse made an effective association. Pink Pelargonium Mrs. Turner with Nicotiana affinis was also good, and tall Heliotrope and Lantana Drap d'Or margined with the pretty Gazania splendens variegata were very fine. Springing out of a groundwork of white zonal Pelargoniums, Ivy-leaved Galilee looked effective, as also did

Chrysanthemum Flora, Dactylis glomerata, and Lantana delicatissima in a carpet of Harrison's Musk. Beds of light and dark coloured Lantanas, carpeted with the beautiful Viola Blue Bell, deserve notice, while very good was an arrangement of Fuchsias gracilis and Sunray, carpeted with a purple Viola and dotted with a golden-leaved Fuchsia. Scarlet and crimson tuberous Begonias with Melianthus major and Dactylis-glomerata, edged with Sanvitalia, made a bright bed also.

Very fine were mixed Cockscombs with Dracenas and the elegant Grevillea robusta, while mixed Cockscombs were well placed with Lilium speciosum rubrum. Calceolaria amplexicaulis, carpeted with Ageratum, was bright; and so, too, was the beautiful leaved Acalypha musaica associated with Erythrina and Montbretias. Groups of Phormium tenax variegata, Agapanthus, Hydrangeas, and Heliotropes were admired also.

Quo.

THE ROSE GARDEN.

REICHSGRAF E. VON KESSELSTATT
ROSE.

OF all the tinted and Picotee-edged Roses I question if there is one of more exquisite beauty than this. I am afraid its popularity will be somewhat marred by its long name. It seems a pity when there are so many simple names available why Roses should be so hampered. This beautiful variety has a brilliant carmine edging, which is accentuated by the creamy yellow ground colour, and, in addition to its pleasing colours, it is a good though somewhat spreading grower. If we can obtain decorative Roses of the compact habit of Mme. Antoine Mari, &c., they will be a great boon. Though the Rose under notice cannot be commended for its habit, yet I am persuaded all who see it will desire to possess plants.

P.

THIS is a Rose that should be more grown. Introduced by the well-known firm of P. Lambert in 1898, it is only now finding its way into the catalogues of our largest trade growers. The flowers are of medium size, but most brilliant in their colouring. An accurate description is not easy, but writing with a flower before me I should say that on a ground of pale yellow they gradually shade into deep rose until the edge of the petal is carmine with a metallic lustre. Altogether a very beautiful Tea, a good grower, and highly scented. In shape and general outline it is reminiscent of Anna Chatron, and it would make an excellent contrast to that Rose.

MARIE PAVIC? PAVIE? FAVIE?

THIS delightful little Polyantha Rose, with its pale flesh, rose-centred flowers, was introduced in 1889 by M. Alegatiere, long enough ago, one would think, for its correct name to be known and generally recognised. It is to be found in the National Rose Society's official catalogue under the second of the above names, and so figures in most of the trade catalogues. I have reason to believe, however, that the correct name is as written in full above, Marie Pavic. Can any of your readers give any definite information on the subject? It is a pity, I think, for an error to be perpetuated even in such a small matter as the substitution of the fifth for the third letter of the alphabet. The other name is undoubtedly wrong.

HERBERT E. MOLYNEUX.

ROSE MME. MARIE LAVALLEY.

THE value and beauty of this Rose are not sufficiently known. It is scarcely more than semi-double, yet by the formation of its petals the flower appears almost full. A pleasing tint at all times, I think it is best in autumn when the glowing carmine-pink contrasts so beautifully with the snowy white base of the petals. This Rose is really

a strong grower, in fact one might say climbing, but as a big bush it is a pretty object. Just a centre stake is then sufficient, and even this is not wanted after the first two or three years, as the growths support themselves. Anyone not having wall space available need not despair of growing the many charming Roses to be found among the climbing sorts. In my opinion walls would often appear more beautiful when draped with other creepers, using Roses for pillars, arches, &c., where their beauty is made the most of.

P.

ROSA RUGOSA VAR. AGNES EMILY CARMAN.

THIS has been in cultivation for a good many years. It is just like the plain Rugosa, but the flowers have more petals and are of a deep vivid crimson colour. It was sent out by Messrs. Storrs, Harrison, and Co., nurserymen of this country, and named in compliment to Mrs. Carman, the wife of my lamented friend, the late Mr. Elbert S. Carman, editor of the *Rural New Yorker*. I think more of this Rose than of any other Rugosa extant, and last year bought and planted every plant of it I could get hold of, and this year I have given orders for every plant that can be spared of it. Why do not you folks in Britain grow it? Do not plant it as you would a Jacqueminot or a Neyron, but make great shrubby masses of it, and then your neighbours a quarter of a mile away will come right over to see what sort of vivid red flowers you have got there. Try it.

W. FALCONER.

Allegheny Cemetery, Pittsburg, Pa.

AMERICAN NOTES.

JOTTINGS FROM AMERICA.

XANTHOCERAS SORBIFOLIA. — Your reference to this beautiful little tree (page 407) prompts me to tell you something of my experience with it. I have grown it continuously since 1878; in fact, had the first plant, so far as I know, brought into this country. It is perfectly hardy with us, will stand 10° below zero with impunity, and will thrive admirably in any ordinarily good garden soil. It has fruited abundantly with me, and I have raised hundreds of plants from our own grown seed. Plants a foot high bloom, and they bloom copiously every year for ever after. In due time it becomes a small tree. Besides being a capital outdoor garden plant, it is one of our standard shrubs for forcing for Easter. If brought along slowly we bloom it in the greenhouse just as well as out of doors. But on account of its long, thick, fleshy yellow roots we cannot crowd them into conveniently small pots; instead we put say three 3-feet high plants together into a 9-inch or 10-inch pot, and in this way get nice specimens; but the flowers are of no use for cutting, they fade too soon. This Xanthoceras has now become one of the common shrubs or small trees in our nurseries, and is as cheap as Spiræas.

GARDENS OF JAMAICA. — I am much interested in reading of these, and hope your esteemed correspondent may long continue his notes. Jamaica is one of the most beautiful islands on the face of the earth, but I was disappointed there with the absence of big trees. Much of the arborescent beauty of the island is exotic, for instance the Bread Fruit trees, Akee Apple, and the Mangoes. Speaking of the "Scotchman hugging the Creole" (page 72), I believe it was a species of Clusia the folks in Jamaica told me was like unto a Scotch attorney, and I got plants and grew them at the Phipps conservatories. One of the biggest trees is the Silk Cotton tree, but I believe I saw as big ones in the Bahamas as are the giants between Kingston and Spanish Town. And the Oranges about Mandeville in Central Jamaica were delicious, far more so than those of California, not any better though than those of Southern Florida. But why do not you make a more systematic decorative use of your magnificent palms? Oh! your Tree Ferns, forested ravines of them, and your filmy Ferns, and a

hundred other species, even Bracken as Vines (a fact), and Gleichenias intertwining together on the sunny mountain slopes.

IPOMEA RUBRO-CERULEA (page 72). — This is as easy to raise from seeds as are common Morning Glories, and it grows luxuriantly in warm sunny places out of doors, but I do not think your English summers are long enough for it to bloom in the outside garden, therefore you had better treat it as an indoor Vine after the way of L. Leari. It is common in catalogues. A few years ago a "Heavenly Blue" Ipomæa, "a new hybrid," came from a California garden with a great flourish. I was then chairman of the Nomenclature Committee of the Society of American Florists, and had to squeeze the life out of that celestial name, for the new "Heavenly Blue" was nothing more or less than my old friend—the true species—*I. rubro-cœrulea*.

WEST INDIAN IPOMEAS. — How grand are these perennial Morning Glories in the West Indies in winter. There are blue ones, mauve ones, white ones, and big bright yellow ones. I remember with what pleasure I gathered the seeds of the several species and got roots of some of them and brought them home and devotedly cultivated them. But they were all too late-blooming for our outdoor cultivation; and indoors they proved barely profuse enough to be of service, except as botanical treasures. They all grew rampantly though.

CACTUS VIVIPARUS (page 108). — Your note prompts me to say that I have grown every species and variety of Cactus hardy in this climate here out of doors, and my experience is this: All of the hardy Opuntias grow splendidly and multiply exceedingly, bloom freely, and some of them fruit heavily, but no bunch or cushion Cactus, such as viviparus or Simpsoni, is of permanent duration. They may do well the first year, and fairly well the second season, but they will keep dying off. The frost heaves them out of the ground a good deal, but in the case of the Opuntias, no matter if all are heaved out in winter, they root afresh in spring and go ahead as if nothing unusual had happened. But the loss is not great, for we can buy them very cheap from the Colorado collectors.

MODERN BOTHIES. — When I look upon the beautiful, commodious, and sanitary bothies as shown in THE GARDEN (pages 412-413) and think of the bothies in the north of Scotland, where I spent the first five years of my apprentices and journeyman days, I note the change with pleasure. Such modern quarters must have an elevating and ennobling influence on the young men domiciled in them, and I earnestly hope that every head gardener in the country will use his earnest endeavours to secure for the young men under him a decent habitation. I do not for a moment say that fine lodgings make good gardeners, but I do insist that clean, cosy rooms have a most healthful and self-respecting influence on young men, and by all means stock the bothy, no matter if it be only a one-man affair, with a few good standard reference works on horticulture, and one or more of the weekly gardening papers. Thirty years ago I used to visit Frogmore frequently, the guest of my dear old friend the late Mr. D. Murray, the indoor fruit foreman there, and I have a very warm side for that splendid garden and its long list of able men.

IVY-LEAVED PELARGONIUMS (page 77). — Your illustration reminds me of these lovely flowers as grown in the gardens of California. There they are hardy all the year round, and are especially fine near the sea coast. They cover embankments, are trained on low trellises as if they were a hedge, they are used as vines on trellises, and one of the prettiest effects I remember was in Oakland, near San Francisco, where a great blanket of this Pelargonium grew over a Pear tree, and hung from the lower branches like a drapery, just like your illustration, a mass of pink and white, for there were two plants.

VERBENAS (page 82). — We do not grow named varieties; we grow them in separate colours or mixed, and mostly every year from seed. In order to have them in good bloom for sale in May many florists grow them from cuttings, but red spider and ill-health are more apt to affect the cuttings than the seedlings before planting-out time. While

variegated Geraniums (must I say Pelargoniums?) set into a ground carpet of *Verbena venosa* made a stereotyped flower-bed of my boyhood, and it is pretty too. I use *V. venosa* very largely yet, but never in a flower-bed. We always use it as a border to new shrubbery beds or belts, and it is fine for this purpose, blooming continuously from June until October. We raise it from seed every year and plant the seedlings out in April.

FLOWERS FOR BUTTERFLIES (page 21) reminds me that the different species of *Liatris* are a great attraction to these insects.

FRAXINUS ORNUS (page 25).—This is hardy, grows well, and blossoms very generously with us, but it is sorely troubled with borers. At Dorset, in New York, I had *F. floribunda*, too, in fine form.

CYDONIA SIMONI may not be uncommon in England, but it is not at all common here; however, it is the deepest crimson coloured variety I know, a distinct beauty, and worth growing. We got ours from Anthony Waterer, and they are not expensive. W. FALCONER.

Allegheny Cemetery, Pittsburgh, Pa.

USES OF BRITISH PLANTS.

(Continued from page 249.)

OLEACEÆ.

ASH (*Fraxinus excelsior*).—This tree supplies one of the most useful of woods, on account of its toughness and elasticity. An Ash pole bears a greater strain than any other wood of the same thickness, hence it has long been used for all purposes requiring lightness and strength, such as spears and handles of agricultural implements. The stumps produce an excellent coppice, the shoots being cut every five or six years. These make excellent packing-cases, as well as Hop-poles. Walking-sticks, hoops, baskets, &c., are made of the shoots. The lower part of the trunk is often veined, &c., and is used for veneering. The leaves have often been used for fodder. Manna, a form of sugar, is obtained from the sap of several species of Ash, including the British one, in Southern Europe, for it requires a higher temperature than Britain affords. It differs from ordinary sugar in being unable to undergo fermentation. It is mildly laxative, and included in the British Pharmacopœia. The half-ripe fruit or "keys" were formerly eaten pickled as a salad, and were esteemed for their supposed medicinal value.

Privet (*Ligustrum vulgare*).—The chief use of this shrub or tree is for hedges, which, when clipped, grow very compact. The dark black-purple berries have been used for a green-coloured dye for woollen cloth.

GENTIANÆÆ.

Gentian (*Gentiana*).—There are many species of this genus in Switzerland, the high mountainous ones being of a deep, brilliant blue colour. There are six in England, well known for the bitter qualities of their roots. The Swiss *G. lutea* is used in the British Pharmacopœia, but our own *G. Amorella* and *G. campestris* have been popular astringents.

Centaury (*Erythraea Centaurium*) is a little annual with rose-coloured flowers, and contains a bitter principle like the Gentians; hence it has been used for the same purposes, as tonics and febrifuges. It is an excellent stomachic.

Yellow Centaury (*Chlora perfoliata*).—This plant is a familiar one in chalk countries, easily known by its eight yellow petals and perfoliate, or rather connate, leaves. It is bitter like the others, and has been similarly employed. It also yields a yellow dye.

Buckbean (*Menyanthes trifoliata*).—This is an aquatic plant. The leaf has three oval leaflets, with a sheathing stalk. The flowers form a raceme, having fringed, pinkish white corolla. The

leaves in this case are used as a tonic and febrifuge. The foliage has been employed in place of Hops as an adulteration. Though fraudulent, it is not injurious.

BORAGINACEÆ.

Viper's Bugloss (*Echium*).—The word "Viper" is given from a fancied resemblance in the spots on the stem to those on a viper; but others say it was the shape of the seed that resembled the head of a snake, hence on the doctrine of "signatures" or resemblances the plant should cure snake bites. Of course, it has no such power.

Borage (*Borago officinalis*).—This is a common South European weed by roadsides in Malta. It was at one time highly appreciated as a cordial and for catarrhs. The fresh tops are still put into tankards for "cooling," this being due to the nitrate of potash in the plant. Gerard, in his "Herbal," 1597, says: "Those of our time do use the flowers in salads, to exhilarate and make the mind glad, to comfort the heart, and driving away of sorrow."

Comfrey (*Symphytum officinale*).—This was a famous remedy for wounds in the Middle Ages, and called *Consolida*, *Knytte-wort*, or *Knit-back*. As the plant abounds in mucilage it has been used like Marsh Mallow as an emollient for intestinal troubles. The foliage when young is often eaten in the country as a vegetable; it also affords excellent fodder for cattle.

Gromwell (*Lithospermum*).—The nutlets of this plant are very stony, having a polished silicious surface, consequently it was thought to be intended as a remedy for the stone. *L. arvense*, like *Alkanet*, yields a good red dye, and is said to be employed in Sweden for this purpose. Linnæus tells us that the women of Sweden stain their faces with it, perhaps in lieu of rouge.

Alkanet (*Anchusa*).—*A. officinalis*, Bugloss, or Ox-tongue, as this word means in Greek, was formerly much used as a cordial. Alkanet is a purple dye obtained from the root of *A. tinctoria*, a foreign species.

Hound's-tongue (*Cynoglossum*).—This plant smells very disagreeably of mice, but was formerly used in medicine, being astringent if not narcotic as well. The very disagreeable odour made it fall into disrepute. A recipe of the fourteenth century says: "For him that may not well speak, give him to drink Hound's-tongue."

NOTABLE GARDENS.

THE GARDENS AT BLICKLING HALL, NORFOLK.

"Nature's smile or frown
As cast on thee is beautiful."

THE ill men do lives after them.' Fortunately, so does the good. In the nature of this it is impossible for the new to rival the old in interest or charm; the modern and the picturesque will not go hand-in-hand. What would the little East Anglian village of Blickling be worth without the good deeds and good works of our ancestors? They have bequeathed us here a pleasant heritage. Ever since King Harold's time the village of Blickling has been growing and mellowing in beauty.

"Blickling" is spelt in many different ways, but it means the "Beck-meadow," and the old manor house where once King Harold lived, as well as the present structure, were placed in the lowlands lying along the course of a stream that runs from Blickling Mill to Ingworth. Blickling Hall, as we now see it, was built by Sir Henry Hobart at the beginning of the seventeenth century. The park and pleasure grounds cover 1,000 acres, and are graced by a crescent-shaped piece of water about a mile long, and bordered by soft green slopes and shady trees.

The Hall is reached after a short drive from the market town of Aylsham. It is built of fine brick with stone facings, is moated and turreted, and has a clock tower. It stands well back from the road, and is approached by a wide drive flanked by long lawns and broad Yew hedges; behind each hedge a row of trees. The outbuildings and ancient doorway remind one a little of the Cardinal's Palace at Hampton Court.

The gardens lie on the east side of the house, and are of extreme beauty, but they are modern. It was in the year 1872 that Constance, Marchioness of Lothian, laid them



YEW AND FLOWERS IN THE GARDENS AT BLICKLING.

out. Before that time a long grass slope stretched from this part of the house to a grove of trees on the highest point of the park, but a great storm wrecked the Oak trees, and after that a large portion of ground near the Hall was levelled and so arranged that the flower garden should be sheltered from winds, though open to the sunshine. This garden, the ground work of which is soft fine turf, lies all along the frontage of the library, a noble apartment containing pictures, low deep seats, and upwards of 10,000 volumes. It takes up the whole of one side of the house. This long façade is only separated from the garden by the moat, which was drained and dried by the second Earl of Buckinghamshire, and is now a

carved in stone; it bears the date 1697. The flower-beds are of many shapes and sizes, and are interspersed with arches, clipped Yews, and open bowery arbours, and there is statuary, but not of the year 1872. Every piece is clearly as old or older than the Hall itself. It was brought from another old Norfolk mansion, now in ruins, that belonged to an Earl of Yarmouth.

On entering the garden one is struck by the blaze of colour. So large a mass of beds, all filled with bloom, is wonderfully effective, but there is no crowding. Space is left so that one can walk with ease upon the velvet turf and enjoy the fragrance and beauty of each group of flowers. The garden is quite formal,

else, but, as it happened when we saw it, a flight of tortoiseshell butterflies enjoying the honey of the blossoms, and in the centre some trails of purple Clematis.

One unique feature of this garden is the four great square beds at each corner. They are raised in the centre, and here the tallest flowers are planted, such as the loftiest of Sunflowers, with great, round, yellow faces, Dahlias and Daisies, Phlox and Snapdragons, Southernwood, Starworts, Marigolds, and Lilies—all sorts of old-fashioned favourites are marshalled round the Sunflowers according to height and slope gradually downwards to close-cut borders of green or variegated Box. All the beds have permanent edgings. Another



BLICKLING HALL, NORFOLK: THE EAST FRONT.

green sunk garden, delicious with Magnolia and Rosemary. Rosemary grows wonderfully well in Norfolk, and appears specially content here, sending its roots deep down among the stonework in warm corners.

The accomplished and gracious lady who designed the flower garden took care that it should be in harmony with its surroundings. So quaint and old-world is it that but little stretch of imagination is wanted to picture fair Anne Boleyn wandering about its borders, followed by the fickle King who married her privately, as some say, from this very place. The wide lawn is gay with flower-beds, and in the centre is a fountain bright with gold fish. At the end near the steps that lead to the upper garden stands a sun-dial with four faces

and it is only when one stands a little distance away and takes a bird's-eye view that the exact precision of arrangement is noticeable. On either side the fountain, which is placed on a gentle hillock, run riband borders of Plantain Lily, its pale green foliage lovely enough without a flower. Every flower-bed or ornament on one side of the fountain has its counterpart upon the other.

It is the practice of the Blickling gardeners to place a centre-piece of some sort in every flower-bed. Beds of yellow flowers have yellow Roses trained invisibly above them; in crimson and pink beds there is often a small striped Maple tree. Some scarlet Lobelias are growing in great perfection in one round bed. In another there is a mass of Heliotrope, nothing

feature which is really remarkable are the solid blocks of close-clipped Yew, which stand between the upper and lower gardens. They are large enough for many men to stand upon at once, and look firm enough to support their weight. In colour they shade from darkest green to gold, the colour depending on the age of the foliage. There are four of them, and they are as neat as if a barber had cut them. An urn or two, of stone, with growing flowers are placed at this end of the lawn, which is divided from the flower-lawn by a path. There is here a feeling of repose, in pleasing contrast to the rest. Here stands the sun-dial. On one side of the brilliant garden runs a terrace walk hung with Ivy and Virginian Creeper, and bordered with Ferns. Under it there are



MIGNONETTE MACHET WHITE PEARL.

leaves in the masonry for seats and a summer-house. On the opposite side the garden melts into park, and it exchanges the beauty of flowers for that of trees. From this point one has a good view of the lake and the fine group of Beech trees by its side.

Some Oriental Plane trees here grow so luxuriantly as to strike one as something fresh. They spread themselves upon the grass almost like Willows. It was on the last day of September that we saw them; the deeply-notched leaves were showing touches of pale gold, and among them the fruits hung brown and crisp. Walks in these gardens are not many, but they are broad and comfortable; nothing here is small or cramped or meagre.

Lingering among the lawns and woodlands one wonders a little at the patriarchal appearance of some of the gardeners that are about sweeping or gathering fallen leaves. We learn upon enquiry that the late châtelaine of this fair domain had such a tender heart for the gardeners who had grown old in her service that, instead of pensioning them off, she kept them about the place to do light work. There are now fourteen gardeners employed about the grounds besides the master gardener.

The gardens are preserved in the same beauty that their recent owner loved so much, and during the summer months are open once a week, free, to visitors. Inhabitants of Norwich and visitors to Cromer and Sheringham are not slow to avail themselves of the privilege.

Blickling has been lived in by King, by Prelate, and by a Lord Chief Justice. It has been the home and haunt of beauty, law, and chivalry; in it the gardener, the antiquary, the historian, and the artist may alike find pasturage.

F. A. B.

NEW & RARE PLANTS.

LYSIMACHIA HENRYI.

CHINA, the home of the plant here illustrated, has furnished many of the

species belonging to this genus, as many as thirty-five being described in Forbes and Hemsley's "Index Floræ Sinensis." Since

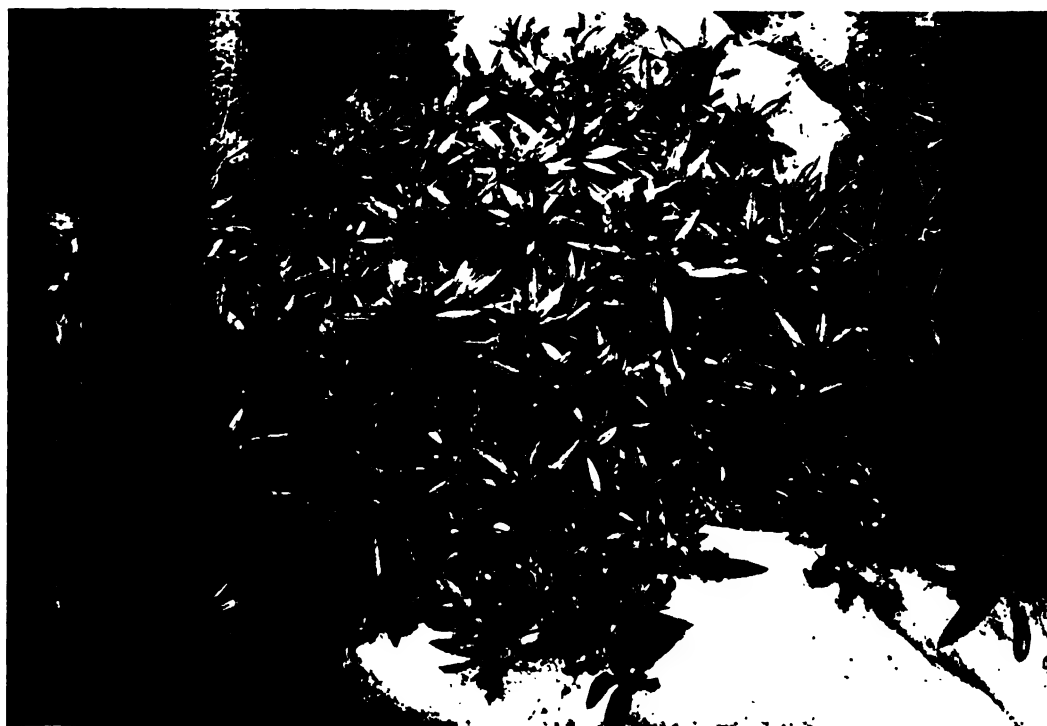
this work was published twenty-five more species have been found and described bringing up the total number of species found in this region to sixty out of one hundred comprising the genus. Most of these are distributed over the temperate and sub-tropical regions of the northern hemisphere, a few coming from tropical and South Africa, South America, Australia, and the Pacific Islands. *L. Henryi* is a tufted perennial rapidly forming large dark green cushions a few inches high, composed of reddish interlacing hairy stems, rooting at the nodes as they spread. The bright yellow campanulate flowers are produced in dense, terminal heads all over the plant, keeping up a succession of bloom during the summer and autumn months. This species was found by Dr. A. Henry in the province of Szechuan at an elevation of 6,000 feet to 8,000 feet, and also in Ichang and its immediate neighbourhood, growing in moist situations. Its introduction to cultivation was however, due to Messrs. James Veitch and Sons, Limited, whose collector, Mr. E. H. Wilson, procured seeds and sent them home. Plants flowered at Coombe Wood Nursery last year, and a piece was sent to Kew. Probably owing to the moist condition of this season it increased rapidly, quickly forming large patches in the rock garden and herbaceous ground. The photograph here reproduced represents the plant in the rock garden, where it is growing in an open, sunny situation. Two other species of *Lysimachia* of recent introduction owe their origin to the same source—*L. crispidens*, with light purplish flowers and graceful habit; and *L. stenosepala*, a free growing plant, producing numerous white flowers in long racemes.

Kew.

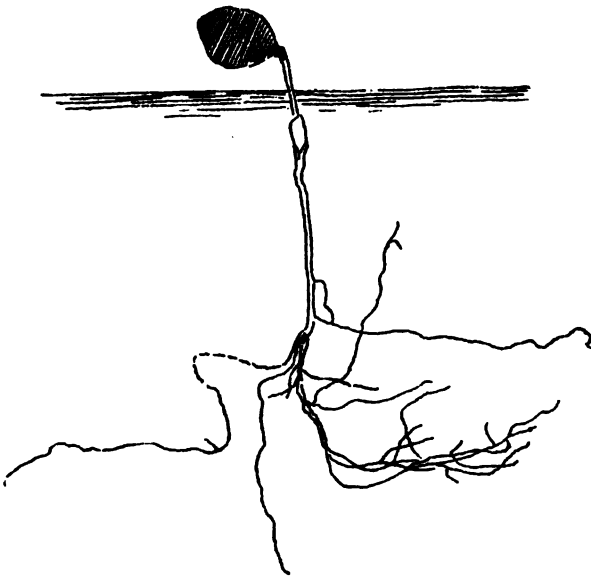
W. IRVING.

MIGNONETTE MACHET WHITE PEARL (THE WHITE MACHET).

UNDER this name Messrs. Pape and Bergmann, Quedlinburg, Germany, send us a novelty which forms a counterpart to the varietie



LYSIMACHIA HENRYI IN THE ROCK GARDEN AT KEW (FLOWERS YELLOW).



ANEMONE NARCISSIFLORA (SEEDLING STAGE).

Rubin and Goliath (the red Machet), introduced by the same growers several years ago. The habit of this novelty is that peculiar to the Machet class, viz., vigorous and compact, and with richly coloured flowers. The flower-stems are erect, firm, and bear long and very thick panicles. The flowers are pure white, among which now and then appear single red anthers, rendering this novelty more striking still. These two colours together form a very good and pleasant contrast with each other. Mignonette Machet White Pearl is as satisfactory in pots as it is in the open ground. Combined with Machet Rubin, whether in beds or bouquets, it has an excellent effect, these two varieties being so well adapted the one for the other. It is not yet quite constant.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

LYCORIS SQUAMIGERA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Reference in THE GARDEN for the 3rd inst. to the Kew Belladonnas reminds me of the way in which this Lycoris flowered there last August, for on a visit in the early part of that month nothing surprised me more than the forest of spikes, each bearing several blossoms. They were planted against the wall of the tropical fernery, and almost every bulb must have sent up a flower-spike, the general appearance of the mass being exactly that of Amaryllis Belladonna, except in the colour of the flowers, which were by no means showy, being a kind of dull greyish blue. It certainly has little claim to be called the blue-flowered Belladonna Lily, by which name it has been known. Whatever its merits may be it was, however, quite a surprise to see this comparatively rare plant flowering in such quantity. It is a native of China, and first found its way here as Amaryllis Halli some sixteen or seventeen years ago. Of the other species of Lycoris by far the showiest is *L. aurea*, which has not hitherto proved very amenable to cultivation, though imported bulbs of sufficiently large flower freely the first season. A second species, *L. radiata*, used to be sent to this country from Japan in very large quantities under the name of *Nerine japonica*, in company with *Lilium auratum* and other Lilies, but they realised so little that for the last two or

three seasons I have not seen any. The bulbs grew freely enough, but the difficulty was to induce them to flower. T.

ANEMONES FROM SEEDS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—If I may once more encroach on your valuable space I can, fortunately, supplement seedlings of *A. narcissiflora* showing an earlier stage of growth, an illustration of which E. H. Jenkins in the very instructive and interesting note in your issue for the 19th ult. considers ought to have accompanied my previous remarks to make the information complete. The excrecence at the base of the stalk just above the root is plainly visible, though I rather think it would be misleading to speak of it as "tuberous" or "bulb-like," for in the earliest stage the embryo leaf, which really constitutes this "excrecence," is merely sheathed inside the base of the cotyledon stalk, which latter then only shows a slight swelling at that point. I had well observed this in a very early stage on digging up some of the seedlings on the occasion of my first note, but am now, unfortunately, unable to show it, the seedlings having all advanced a step further. In those I now send the embryo leaf already protrudes through the slit in its wrapping.

One of these seedlings has the cotyledons still perfectly fresh and green and the leaflet is stronger developed, while the other one with withered seed leaves and stalk appears to have gone to rest for the season.

I am now also able to show a seedling of *A. vernalis* which, seven weeks from the time of sowing the seeds, has already two leaves, which in the case of this species break from the central axis of the seed leaves. These seedlings come up within a fortnight, and in about another week the budding leaves could be discerned. I would here also take advantage to correct an error to which my daughter drew attention on reading my previous note, in which I said that seedlings from this year's sowing looked strong enough to flower in the ensuing spring, but this is not so, for those are last year's sowing. I can now say positively that they will flower in the spring, buds having meanwhile formed in all of them. Self-sown seedlings of *A. vernalis* are also coming up all over the place. I quite admit that I deserve E. H. Jenkins' reproach of imprudence for having rashly cast away seed pots, for I certainly ought to have known better, not being exactly a novice, but I was really prompted to my first observations by a question put to me quite recently by an English gentleman as to whether I could report any success with having raised *Anemone alpina* and *sulphurea* from seed, he himself having had unsatisfactory results, from which I concluded his case to have been identical with mine, and probably, also, with the failures of many others. I had previously heard similar complaints. In consequence of E. H. Jenkins' valuable hints on seedlings of bulbous, &c., plants I am now, moreover, obliged to own that without a doubt have I repeated the same blunder over again, of having rashly cast away without previous examination a pot of *Eremurus himalaicus* seedlings last summer, in which about a dozen of the very "tiny erect green blades" which E. H. Jenkins describes in the case of *Narcissus* seedlings had sprung up, but



A. VERNALIS ON SEPTEMBER 20, 1903, FROM SEED SOWN JULY 30, 1903.

which on my return from a holiday had vanished, owing to neglect, of course, as I thought, and in my annoyance I had nothing better to do than turn the pot out on the compost heap.

Many other amateurs like myself will for the future be able to profit by E. H. Jenkins' timely hints, and for my own part I wish here to convey my sincerest thanks for them. E. HEINRICH.

Planegg, near Munich (Bavaria).

NEGLECT OF THE VERBENA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I read your letter on the Verbena in THE GARDEN (page 117) with much interest. Like yourself, I have always admired that flower. Over forty years ago I remember going with a friend to see Mr. Link, gardener to Lord Herries of Everingham Hall, who at that time had some beautiful beds of such varieties as *Geant des Batailles* (crimson, with very dark shading round the eye), *Brilliant de Vaise* (pink), *Mrs. Holford* (white), &c., and who gave me some cuttings, and I have had Verbenas ever since. The winter before last, owing to illness, nearly all my Verbenas were lost. I had a very good white one with the merest tinge of green round the eye, but it perished, and I have never been able to replace it. I observe you say you have a white and blue. If you have a good white and a blue, the nearest you have to lobelia or sky blue, I should like to buy some cuttings.

I also notice you advise a cold frame to winter them in. I tried a cold frame years ago, but the cuttings damped off before Christmas, and I have not tried a frame for years. I winter mine on a high shelf in the greenhouse, where they do very well. A friend of mine, a beekeeper like myself, also sweet on the Verbena, says his father always wintered his in a cold frame, and I believe my friend has done so a time or two, but will ask him when I see him. The flowers enclosed are the two best I have now—*Foxhunter* (crimson) and a seedling.

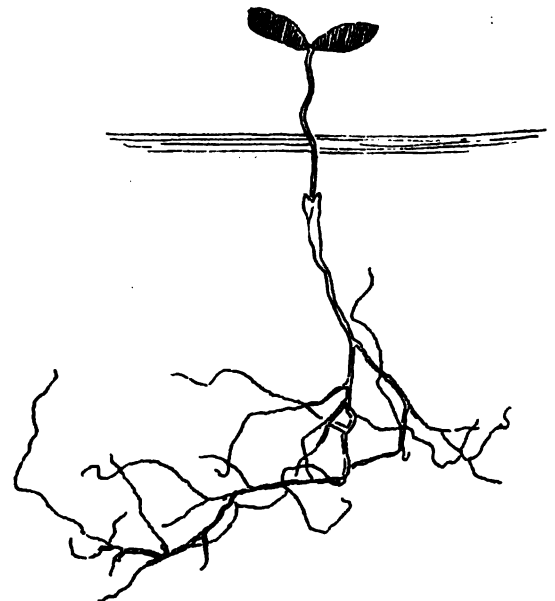
Sheffield.

WILLIAM CARLTON.

DORMANT BULBS, CLEMATIS MON-TANA, AND GENTIANA ACAULIS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was much interested in Mr. S. W. Fitzherbert's note on bulbs remaining dormant, as I have had many such. Three years ago I had given me three bulbs which came from Burma; they all grew well the first year, but after the leaves died down and did not appear the next year I thought the bulbs were dead, but on turning them out



A. NARCISSIFLORA IN SEPTEMBER, 1903, FROM SEED SOWN IN THE AUTUMN OF 1901.

found them with good roots and perfectly sound. This year one has made leaves, but the other two still remain dormant but quite sound. *Ornithogalum arabicum* will keep dormant and also stand bad treatment. Five years ago I bought twenty-four bulbs, and they were put on a shelf in the potting shed and forgotten. On finding them twelve months later and being quite sound I have experimented to see how long they would keep so. I have potted four bulbs each year, and, though they have grown, they have not all flowered. I enclose two bulbs for your inspection, and, though somewhat shrunk, you will see they are quite sound if cut through. It is curious that bulbs of any sort can be kept out of the soil for five years and still remain sound, but I imagine that very few would like such treatment. *Clematis montana* I have twice cut down within 2 feet of the ground, having stems 5 inches in circumference, and both plants grew as vigorously after the operation as before. But these were both small compared with the one cut down by "S. W. F." *Gentiana scutellaria* I have had on one side of my garden for five years without its showing a bloom. The last week in August I pulled away some single stems and dibbled them in the other side of the garden. Many of these little pieces have now buds, and will shortly be in bloom. They have a good hard soil to grow in and get all the sun, but why should they have bloomed now? As they had very few roots I quite expected they would have spent their time in making roots, and not buds. *Gentiana septemfida* grows and blooms well in the same position.

Ancley, S.E. I. W. NEALL.
[The bulbs were quite sound.—ED.]

THE FRUIT GARDEN.

A FEW NOTES ABOUT PINES.

ALTHOUGH the culture of the Pine-apple is generally considered to be a thing of the past in this country, a few still consider that a well-grown English Pine is far superior to any imported varieties. Importation, owing to fast and improved steamship accommodation of late years, has been the means of bringing a quantity of Pines into the English market, inferior in quality, but at a more popular price. The result is that a great many people at the present day are unacquainted with the flavour of an English-grown Pine, and also their cultivation; and, more than that, are led away with the impression that Pine culture is the most expensive form of gardening that is pursued under glass. In reality, however, the expense is no greater than in the case of such plants as *Crotons*, *Dracenas*, and other stove foliage plants.

It is supposed that Pine culture was introduced into this country about the end of the seventeenth century, at a time when a temperature sufficiently high for the plant's requirements was far more difficult to get than at the present day, when all the modern glass structures and heating appliances are at command. Why such things as Cherries, Plums, Pears, &c., should be forced at the expense of driving Pines out of cultivation is a mystery when they can be had naturally. It can only be ascribed to fashion, which dominates gardening as well as other things.

Anyone undertaking the culture of Pines should proceed as follows: Obtain a quantity of suckers or tops. The suckers are, we will suppose, got in the spring. They should be

inserted in 4½-inch pots in good sandy loam, and plunged in a bed of Oak leaves or tan, with a bottom-heat of not less than 55° to 60°, and an overhead temperature averaging from 60° to 75° in winter and from 65° to 90° in summer, according to sun-heat. If grown as advised the current year, the following spring they should be potted into 8½-inch pots and grown on as before, always taking into consideration that the nearer the plants are to the glass the better. The pots should be plunged at least 18 inches apart each way. The plants should not be syringed overhead, except when sun-heat causes rapid evaporation, but keep the floors of the house well damped. This concludes the summary of the second year's growth.

The third spring repot the plants into 11½-inch pots in a mixture of soil consisting of two parts good, well-matured, turfy loam, one part leaf-mould, one part silver sand and broken charcoal. See that the pots are well crocked. This year the fruit should begin to show. When the plants are rooting freely an



PINE-APPLES IN THE GARDENS OF MR. S. HEILBUT, THE LODGE, HOLYPORT, NEAR MAIDENHEAD.

occasional watering of cow manure water will benefit them, or artificial manure may be used to advantage, little and often.

The varieties grown here are The Queen type, which is a summer-fruiting variety, and the smooth-leaved Cayenne, which fruits in winter and early spring. This latter variety is the one so largely grown in the Azores, from which the English fruiterers obtain their supply from August till the following May.

I may add that Pines are subject to insect attacks, but at the same time are most difficult to clean. Mealy bug and scale are the worst enemies, and sponging is difficult. Where affected syringe frequently, with the plants laid on their sides on a mat, with a mixture of water heated to 100°, one wineglassful of paraffin to one gallon of water. When syringing have another person continually stirring the mixture.

J. EUDALE.

The Lodge Gardens, Holyport, Maidenhead.

ALPINE STRAWBERRIES.

In order to obtain vigorous plants and to be certain of a good crop from them, a fresh plantation should be made every year. Three beds should be arranged in the garden—the first to lie fallow or to be occupied only by plants that will be done with before the end of September, the second to be occupied by plants put in the previous September (these should produce fruit from June to the first frosts), and the third to be planted two years previously. This should produce fruit from spring until the plants are exhausted, when those which survive should be pulled up, the soil deeply worked, left thus for the winter, and not replanted until the following September, and so on year by year, one bed every year being destroyed.

Growers are generally content with taking runners from plants which are still bearing fruit and planting them at once in beds prepared for the purpose. Good results are not always obtained by this method, for the planting is often done too late—at the end of October or even in November. Then the frost comes before the young plants have had time to take root. They suffer all through the winter, and in spring those which are

not already dead grow with difficulty, and form sickly and badly rooted plants. The following method has for the past six years always given me excellent results. In June I sow seeds obtained the previous year from the finest fruits.

The sowing is made either in the greenhouse or upon old hot-beds. As soon as the seed is covered with soil, which is pressed firmly, I cover it with light straw litter or, better still, with Moss, in order to keep it moist during germination, which ought to take place at the end of three weeks. I carefully water so as to keep the soil constantly moist. As soon as the young plants begin to appear I remove the litter, but continue to keep the earth moist.

About August 15 I plant out—rather closely together—in the nursery in order to preserve the young plants during the winter. The second fortnight of March I place the roots in pairs in beds, without covering, prepared for the purpose. When they begin to grow well, about the middle of June, I give plenty of water, and by August 20 I have a quantity of very fine runners. Of these I choose the best formed and place them two by two

in pots filled with soil. The pots are then placed under frames, watered, and shaded for about a week. They are then left in the open air until required for planting. This can be done late in November, for with this treatment there is no longer any fear that the roots will lose their hold of the soil through the action of the frost. I never allow runners in my Strawberry beds which are bearing fruit; I remove them every week. Still, in default of runners from seedlings, they could be taken from a fruit-bearing bed.

C. CHAILLOT, in *Le Jardin*.

APPLE BEAUTY OF KENT.

To your notes to the illustration of this valuable late variety (page 239) might be added a word as to its quality when cooked. If not absolutely the best in this respect in cultivation, it would be very difficult to find its superior. This is a comparatively neglected variety, and worthy of much wider cultivation than it at present receives.

Lowdham, Notts.

CHAS. E. PEARSON.

GARDENING OF THE WEEK.

FRUIT GARDEN.

HARDY FRUITS.

WITH the exception of late Apples, which will be quite fit for gathering, most of the fruit will now be stored, and, the weather being so mild and favourable for ground work, every operation pertaining to the disturbance of the roots of trees will repay early attention. On high and dry soils the importance of root-pruning is not always appreciated, but in cold, damp gardens it forms the keystone of success in the production of good crops of nearly every fruit. Another important matter in the management of wall trees is good coping, temporary or otherwise, for protecting the flowers from frost. It is generally discussed once a year, and is again forgotten until the early flowers remind us that the time is on the wing, and it is again too late to carry out the good intentions formed after the sharp frost of the preceding month of April. It is not for us to advise the kind of protection, as circumstances alter cases; but we may say we give preference to portable glass lights 2 feet in depth, which can be taken down and stored away as soon as the fruit is set and safe from spring frosts. Now is the time to set about making, purchasing, or providing protectors for next spring. It will not, however, be well to put them up until they are actually wanted, as constant protection makes the trees tender and more liable to be injured by severe frost. When the usual routine of root-pruning and planting of what may be termed modern trees has been brought to a close, there generally remains a large section formed of old friends in the orchard which would well repay attention; and, as many of the trees are profuse bearers, the old-fashioned plan of taking away the surface soil down to the roots and replacing it with a rich mixture made up of fresh turf, manure, charred refuse, road-scrappings, or almost anything that can be got together for the purpose, will have the desired effect in increasing surface roots and the size and quality of the fruit. We will assume that the ground is properly drained, and the heads of the trees well thinned out to let in sun and air; but if these matters are not satisfactory, the dead months now before us will be profitably employed in making them so.

PRUNING AND TYING.

Where the winter dressing of fruit trees forms a heavy item an effort should be made to get this work forward before severe weather sets in, as men can get on much faster, the work is performed in a better manner, and the early removal of all superfluous matter exposes the trees and walls to the cleansing influence of frost and rain. With us the Currant is nearly ready for pruning. Then will follow the Plum, the Cherry, and the Raspberry. The latter will have the canes securely tied to stakes

or trellises, the shortening back being performed later on, and a good mulch of rotten manure will make all safe for the winter. Peaches and Nectarines we always prune as soon as the fruit is gathered; the shoots are then neatly tied in close to the wall to ripen, and nothing more is needed till the time comes for untieing and drawing the branches away from the walls to prevent the buds from getting too forward. To prevent the shoots from getting injured by wind a few stout Ash rods are placed in the border 1 foot from the base of the wall and bowed into the coping. Every part of the tree is then washed with strong soap-water or a solution of Gishurst; 8oz. to the gallon of water will perfectly cleanse the trees from insect larvæ if applied with a hard paint brush.

Madresfield Court.

W. CRUMP.

ORCHIDS.

HEATING.

THE temperatures of the warm and intermediate houses should now gradually decline, after which the following should be artificially maintained, allowing a considerable rise by sun-heat: Phalæopsis and warm Cypripedium houses, 75° by day and 70° by night; Cattleya houses, 70° by day and 65° by night; Mexican houses, 70° by day and 60° by night; cool intermediate houses, 65° to 70° by day and 60° by night; cool houses, 60° by day and 55° by night.

DAMPING THE HOUSES.

Much less moisture in the atmosphere will be needed during the damp and mild days of autumn. The cultivator had better err on the dry side rather than have too much moisture, especially in the Cattleya and Mexican houses, or decay of the last made and improperly ripened pseudo-bulbs may take place. Should this occur the damp sheathing should be removed and the affected part of the bulb pricked with a needle so as to allow the excess of moisture to escape.

AIRING.

In the Odontoglossum houses admit air freely by the lower ventilators, using the top ones on all favourable occasions. The cool intermediate houses will need top air only in mild weather, using the bottom ventilators as freely as circumstances will permit. A little air should be admitted by the lower ventilators to the Phalæopsis and warm Cypripedium houses; when windy they should remain entirely closed. The Cattleya and Mexican houses need a freer circulation of air, and this should be carefully admitted by the lower ventilators on the leeward side.

WATERING THE PLANTS.

This will now need great care. The nature of the plants generally must be carefully considered and water applied according to their requirements. Though much less moisture at the roots will be needed, drought must not be carried to excess. Such plants as Phalæopsis, Cypripediums, and other bulbless Orchids should not be allowed to remain dry at the roots, while bulbous plants generally should be given sufficient only to keep them plump and healthy.

CLEANING THE HOUSES.

Begin with the Dendrobium, Cattleya, and Mexican houses whose occupants require the greater amount of light. Clean the glass inside and out, pots, walls, staging, &c. When returning the plants to their respective houses, note those resting, and place at the driest, coolest, and airiest end, and those that have not yet finished growth at the warmest end, and so arrange them that each may have the full benefit of the light. Any that may require repotting or top-dressing should be done as the work proceeds, and any plants badly infested with scale or other injurious pest should be thoroughly cleaned, otherwise the general sponging and cleaning of the plants is best left until the house cleaning is finished.

GENERAL REMARKS.

As soon as shading can be dispensed with, and tiffany blinds have been used, these should be

taken from the houses, choosing a fine day for the operation to dry the material perfectly before putting it away for the season. Carefully note what new ones will be necessary, and those in need of repair, what cord, hooks, rings, &c., will be required, that attention may be given to these details during winter. The heating apparatus should now be put in working order. See that all air taps and valves are movable, examine all visible piping, and see that there are no leaking joints or valves. Flues should be cleaned out and any defects in the brickwork made good. Carefully examine the boilers and see they are safe for the winter's work as far as can be ascertained. These should now be emptied and freed from all sediment. A mild day should be chosen, the temperature of the houses raised to the desired degree, and the fire kept low. Open all valves, turn the taps or remove the plugs from the boilers, and allow the water full force to remove all sediment from the bottom of them. The latter are sometimes ruined through neglect of this simple operation.

F. W. THURGOOD.

Rosslyn Gardens, Stamford Hill, N.

KITCHEN GARDEN.

SEAKALE.

THE plants being grown for providing crowns for forcing have made robust and healthy growth this year, and at the time of writing have not been checked by frosts. The crowns or plants require a few weeks' rest before being introduced into heat, and as they are late in ripening off, owing to the rainy season, very early dishes cannot be expected from them. To hasten the decay of the foliage a few dozen plants may be partially lifted with the spade at this time, and, after being subjected to frosts, the leaves may be removed and the crowns inserted in tan or similar material in the Mushroom house. A bottom-heat of 60° will be necessary, and the crowns must be syringed with tepid water twice or thrice daily, and all air and light excluded.

ASPARAGUS.

When the tops are quite ripe they should be mown off with a scythe or hook and burnt, if not required for other purposes, such as for affording protection to tender vegetables and salad plants. Hand-weed the beds and hoe the alleys, leaving the whole clean and tidy for the winter. Fresh manure for a hot-bed may now be collected and turned in readiness for making-up later on; some tree leaves may be incorporated with it. When the rank ammonia has passed away it may be neatly built up, and a frame placed thereon for forcing the first batch of plants. Like Seakale, this requires a short season of rest, but a few roots may be dug up from a bed that has been planted several years for the supply of a few early dishes. The roots may be placed in the frame in the first or second week in November. A few degrees of frost may be allowed to penetrate the roots before placing in the frame.

CABBAGE.

The plants having become well established, the Dutch hoe should be run through the alleys on fine days to destroy small weeds and to aerate the soil. Watch must be kept for grubs (leather-jackets), and where they have attacked the plants they must be searched for and destroyed, and the gaps made good with strong plants from the reserve bed. It is a good practice to draw some earth to the stems of the plants to prevent swaying by the wind, and also to afford some protection to the sappy stems from frost and snow.

CELERY.

Every opportunity should now be taken to follow on with the earthing of the main crop as it becomes far enough advanced in growth. Where large quantities are grown much labour will have to be bestowed upon this crop at this time, as growth is very rapid. The work should be performed when the tops are dry. Ascertain whether water is needed at the roots before finally earthing up, and, if thought necessary, give a good drenching a few hours before working among it.

CHICORY.

Lift the roots, and, after trimming off the tops, store in like manner to that advised for Carrots. Introduce a few roots every few days, according to the demand, into the Mushroom house, keeping it close and dark.

SALSAFY.

Lift and store in a frost-proof shed in sand or dry earth for use as required.

H. T. MARTIN.

Stoneleigh Abbey Gardens.

INDOOR GARDEN.

SUCH plants as are now being prepared for furnishing the show houses during the winter should have all necessary attention as to cleaning, tying, and training given them; also, by way of bringing them into bloom at the required time, it may be necessary to give a little additional heat, and to place some plants in a lighter position. Chrysanthemums and Salvia in variety will be found most useful for filling the larger spaces now vacant. Bouvardias in pots, the ornamental section of Capsicums, Libonia peruviana, Schizostylis coccinea, Reinwardtia, and the earlier batch of zonal Pelargoniums, late Celosias, Heliotropes in pots, Carnations in variety, together with Roman Hyacinths, Lily of the Valley, and Primulas will give abundant variety, and also serve to furnish the smaller spaces in the houses. Lycopodium, which has covered some of the borders of these houses during the summer, will require renewing about this time; therefore get in as many pots of cuttings as may be required, which, if dibbled into light sandy soil and placed in a warm, moist, and close house, will be ready for use in about three weeks time. As this carpeting of Lycopodium does not stand well during the winter it is desirable to put in successional batches occasionally.

POINSETTIAS

should be ventilated as freely as the atmospheric conditions will allow, and occasional applications of clear liquid manure should be given them, but avoid too much forcing or the plants become soft and do not stand when removed from the growing house. Thyrsacanthus rutilans should now occupy a light position near the glass in the plant stove, and must not be allowed to become too dry at the roots or the plants may drop a part of their foliage. Place successional batches of

WINTER-BLOOMING CARNATIONS

in light, well ventilated houses or pits, as near the glass as practicable, thin out the flower-buds before they are too far advanced, removing those borne on the lateral and weaker stems; an occasional light top-dressing of Clay's Manure or Bentley's special Carnation Manure, and a dose of clear soot water once a fortnight will greatly benefit them and keep the soil clear of worms. The points of the young shoots of

EXACUM MACRANTHUM

should now be taken for cuttings; these strike freely if dibbled in round the sides of small pots in any sandy soil, if plunged in a bottom-heat of 65° under a bell-glass or in a small enclosed case; cuttings rooted now will make nice plants that will bloom freely during next summer.

Wendover.

J. JAKES.

ORCHIDS.**CYPRIPEDIUM INSIGNE.**

NONE is so essentially an amateur's Orchid as *Cypripedium insigne*, of which we give an illustration, made from a photograph kindly sent by a correspondent, who has evidently succeeded with its culture. This is not difficult, for it may be grown in ordinary sandy loam, provided the pot or pan is well drained, and needs only the accommodation afforded by a green-



CYPRIPEDIUM INSIGNE IN AN AMATEUR'S GREENHOUSE.

house or frame from which frost can be excluded. This Lady's Slipper has the additional advantage of flowering during the winter. The plants continue to bloom over a long period, and the flowers keep fresh for some time. Perhaps the correspondent who sent the photograph will be good enough to let us know how such results as the illustration shows were obtained. We have, unfortunately, lost his name and address.

A NOTE ON CATTLEYAS.

CATTLEYA CITRINA.—This species is not often met with, and was introduced from Mexico. The bulbs are small, and are conspicuous from the downy substance in which they are enveloped in their young state. The flowers are produced from the top of the bulbs, and are a bright yellow in colour. They give forth a delightful perfume. *C. citrina* flowers in summer, the blooms lasting a month. It is best grown on a block of wood in a temperate house, and requires shade from bright sunshine.

C. GIGAS.—Undoubtedly this is the finest Cattleya in cultivation, producing exceptionally large flowers. The sepals and petals are of a delicate rose colour, the lip a rich purple in front, and two large yellow blotches in the throat. The flowers are produced in April. It succeeds best in a mixture of three parts peat to one of chopped sphagnum and coarse silver sand. During the growing season it requires plenty of water and a moist atmosphere. When the growth is complete water should be withheld and the plants allowed to rest, otherwise they will bloom very unsatisfactorily.

C. AMETHYSTOGLOSSA.—This is rather difficult to grow, and on that account is seldom seen except in large collections. The bulbs attain a height of 2 feet and 3 feet, and the leaves at the top of them are of a very dark green. The flower spike grows out of the apex of the bulb, and usually carries six or seven blooms. The sepals and petals are of a light rose colour, spotted with rich purple, the lip a deep purple. *C. amethystoglossa* flowers from March to May, the blooms retaining their beauty five or six weeks. It does best in pans suspended from the roof. The potting material should be the same as for *C. gigas*, and the plant raised above the rim of the pot so as to carry the water away quickly. They like abundance of water in the growing season, but require a long rest. Great care should be taken during the resting

season so that the plants do not become shrivelled from want of water. *C. gigas* and *amethystoglossa* require a temperature varying from 60° to 65°.

Waddesdon Gardens.

JOHN R. MORGAN.

KITCHEN GARDEN.**CARTER'S MICHAELMAS PEA.**

AT this season late Peas are appreciated, owing to other choice vegetables falling off, and any that continue the supply as late as possible are doubly valuable. The great drawback with late Peas in many gardens is that mildew is so troublesome. Once this appears it is difficult to arrest in a low-lying position or badly drained gardens, as though there are some good insecticides or mixtures to arrest the spread of this pest, it is much better to grow sorts that are less subject to attack. For the past three seasons I have seen excellent dishes of the Michaelmas Pea well into October, and even now the plants are blooming freely. They are in a very healthy condition, though they were much injured by wind a few weeks ago. This variety pods freely, and they are of a good length, containing seven to nine Peas of the best quality, with a true Marrow flavour. It is a dwarf grower, a little taller this year than usual owing to the heavy rainfall, but even now it does not exceed 3 feet. The growth is robust and the plants branch out grandly. The pods are of a beautiful colour, and the plant, owing to its strength, appears to resist mildew to a degree that is unusual in late Peas; it is certainly a grand October vegetable.

G. WYTHES.

STANDARD BEARER CELERY.

THIS fine variety is now so well known that to say anything in its favour may appear out of place, but it is certainly one of the best red sorts of Celery, and well worth a note. I have grown it for many years, and it will interest those who study quality in vegetables or good culture to point out that at the vegetable conference at Chiswick in 1889, fourteen years ago, Standard Bearer was certificated, and now after so many years it is the premier Celery being shown by that splendid grower Mr. Beckett. It easily secured first prize at Chiswick. I know of no Celery that

keeps better than this variety, and it is of fine quality. There are larger sorts, but mere size is no criterion as to quality in vegetables. I think this was seen in several instances at the recent exhibition, and it was a pleasing sign to note that there was an absence of coarseness that was rather prominent at the earlier conference alluded to above. Standard Bearer, though of compact growth, is very heavy and solid for its size, and the plants, given good culture, seldom run or bolt. The flavour is excellent. S. H. B.

BOOKS.

The Book of Herbs.*—Herbs are a fascinating study, and Lady Rosalind Northcote in her little book about them has risen to the occasion. Her "Book of Herbs," in which they are discussed so pleasantly, is the twelfth volume in a series of handbooks on practical gardening, published by Mr. John Lane in London and New York, and edited by Mr. Harry Roberts. The idea of herbs is as inseparable from folk-lore, mysticism, and magic as it is from cookery, medicine, and perfume. None of these points has been forgotten, and so rich a collection of interesting facts and graceful fancies can only have been gathered by one who took a real delight in the pursuit. The practical gardener might like to hear more about Lady Rosalind's own experiences among the herbs. "Circumstances dictated that my own herbs should grow in a plot rather overshadowed, though annuals, as a rough rule, do best where they can get plenty of sunshine." The chapter entitled "The Growing of Herbs," in which this sentence occurs, is all too short. In these days the old interest in herbalism and herb-growing is greatly renewed, and hints from others are peculiarly grateful. Amateurs who write for amateurs often hit upon the very points that specially interest and assist. Chapter III., which treats of the herbs used in decoration, heraldry, ornament, and perfume, is very interesting. Now that the still-room is again in favour, and the making of perfumes a pastime taken up by ladies of the twentieth century, any information about the uses and properties of fragrant herbs is opportune. Recipes are given in this chapter for pot-pourri and the less familiar sweet-jar.

SOCIETIES.

NATIONAL AMATEUR GARDENERS' ASSOCIATION. This excellent institution of amateur gardeners continues to make headway, and evidence of this fact was apparent to all who attended the last monthly meeting, held on the 6th inst. at Winchester House, Old Broad Street, London, E.C.

A splendid exhibition was arranged in the Great Hall, and on this occasion early-flowering Chrysanthemums, Michaelmas Daisies, and hardy flowers were well shown, besides other flowers, including a display of Orchids. The most noteworthy character of the exhibition, however, was seen in a remarkably fine display of vegetables, in which Mr. George Hobday of Romford, who is an ardent disciple of Mr. Edwin Beckett, the champion of the profession in this respect, staged exhibits of the highest merit.

For the Cannell trophy, value £10, presented by Messrs. H. Cannell and Sons, Swanley, for the best combined exhibit, consisting of six dishes of vegetables (distinct), six dishes of fruit (distinct), and six bunches of cut flowers (distinct), a superb exhibit gaining the maximum award in points found Mr. George Hobday an easy winner. His vegetables, embracing magnificent Leeks of the Champion type, Atlas Craig Onion, Standard Bearer Celery, Autumn Giant Cauliflowers, Runner Beans, and capital Tomatoes, were typical of what vegetables should be, and were not coarse. His fruits and cut flowers were also excellent. This is the second time Mr. Hobday has been placed in the premier position, and should he be successful on the next occasion he will win the trophy outright. Mr. F. M. Vokes was placed second with a fine exhibit, his flowers and fruits being very good. Mr. George Hobday was a good first and Mr. F. M. Vokes second in a class for a collection of six varieties of vegetables for a good series of prizes offered by Messrs. Sutton and Sons. These exhibits, as well as that of the third prize winner, were of excellent quality and splendidly set up. Mr. William Sydenham of Tamworth, offered a cup for six bunches of early-flowering Chrysanthemums, distinct. This was easily secured by Mr. D. B. Crane, Highgate, in a good competition. His bunches were large, and the blooms fresh and of good colour, and the varieties were Harvest Home, Ivy Stark, Miss Dorothy Humphreys, Martinmas, Anastasia,

and Veuve Cluquot, the last two being good Pompon sorts. Mr. Coates was placed second, and Mr. Levi, Weybridge, third. Michaelmas Daisies were well shown by Mr. Levi, who secured leading honours with six bunches distinct, and he was followed by Mr. W. D. Barnes, Woodford, also with a good series. There were numerous other classes, all of which were well contested.

The lady members were to the fore with several excellent dinner-table decorations, as well as with other representations of the floral decorator's art. This is becoming an increasing element in the monthly exhibitions, and provides much that is attractive and interesting.

In the lecture-room the meeting commenced at seven o'clock in the evening, Mr. D. B. Crane (deputy-chairman) taking the chair in the absence of the president, Mr. T. W. Sanders, F.L.S. Mr. W. Iggliden had promised a paper on "Tomatoes," but at the last moment was unable to be present. Mr. A. J. Foster, however, read a short paper on "Spring-flowering Plants for the Greenhouse," which was very acceptable. He referred to plants requiring a temperature of between 40° and 60°. He first dealt with bulbous subjects, which are embraced by the following: Hyacinths and Tulips, Daffodils, Crocuses, Polyanthus Narcissus, Cyclamen, Tuberose, Freesias, &c.; also other subjects, such as the Cineraria, Primula obconica and the Chinese Primula, Spiraea, Lily of the Valley, Amaryllis, Dieffenbachia, and the Indian and Mollis Azaleas, &c. Each plant was dealt with in turn, and brief and concise cultural instructions given. The management of the greenhouse was also considered, and a thoroughly practical and interesting paper listened to with attention. An excellent discussion followed, in which many members joined. The next meeting of the association takes place on Tuesday, November 3, at 7 p.m., when Mr. H. A. Smith will give a paper on "Ferns," a subject with which he is very familiar. Mr. F. Finch, the hon. general secretary, 117, Embleton Road, Lewisham, S.E., will be pleased to give particulars regarding the work of the association, and forms of application for membership.

CARDIFF GARDENERS' ASSOCIATION.

The first meeting of the season took place at the Grand Hotel on Tuesday, the 6th inst., the president (J. Lynn Thomas, Esq., C.B., F.R.C.S., J.P.) presiding over a very large attendance. Mr. John Basham, F.R.H.S., delivered a lecture entitled "Notes on Hardy Fruits, especially Apples and Pears." After addressing the audience at some length on the history of the Apple, Mr. Basham pointed out districts where centuries ago they were conspicuous for their beautiful and fruitful orchards. During the time of the Civil Wars great damage was done to the orchard trees referred to. Unfortunately, since then no one seemed to have replenished the orchard plots thus described. Mr. Basham did not hesitate to say that better Apples had been grown in the valley of Glamorgan than in any other part of the world. Yet, he said, people do not plant, owing chiefly to this reason— insecure holdings of tenancy on the part of the landlords. Twenty excellent dishes of very fine fruits of Apples and Pears were staged by the lecturer, which illustrated the fact that they were not only larger but better in flavour than is generally the case with imported ones. After such a lengthy lecture, full of historical and interesting details, Mr. Basham was accorded the best thanks of the meeting, and was also unanimously awarded a first-class certificate for the collection of fruit. Mr. F. G. Treseeder was also awarded a first-class certificate for a new type of Dahlia, viz., a Cactus Pompon, Mary. An unanimous vote of thanks was accorded the chairman for presiding, which brought the proceedings to a close.

CROYDON AND DISTRICT HORTICULTURAL SOCIETY.

This society's meeting took place at their rooms, Sunflower Temperance Hall, George Street, on Tuesday week last, when Mr. J. Cheal, Lowfield Nurseries, Crawley, lectured on his recent travels in America and Canada. The attendance was not so good as usual, owing, no doubt, to the very inclement weather experienced that day, when gardeners, perhaps, had other pressing engagements with their occupation after such severe storms. However, to those who could brave the elements a treat indeed was in store for them. The lecture was mainly devoted to the horticultural experiences gained by Mr. Cheal during his visit. The lecturer had taken photographic views of places of interest he had visited, and these were shown by lantern slides, which portrayed to his audience the methods adopted in the new country in laying out their public parks and private grounds. It was gratifying to hear of the very hearty reception accorded him upon landing on the other side of the herring pond, for the Government placed at his disposal many facilities, whereby he was enabled to do the trip in a quick and enjoyable manner, as also the leading horticulturists extended to him a hearty welcome to their nurseries. He was pleased to say that in almost all cases the responsible positions in private establishments were held by men from the Old Country, clearly exemplifying that the Britisher is still predominant in this profession. Mr. Cheal is a lecturer of exceptional lucidity and eloquence, and when the meeting expressed their unanimous thanks to him regrets were voiced from all sides that the time at his disposal was all too short. Mr. Baldock very kindly officiated with the lantern. The exhibits displayed were meritorious, and were contributed by the president (Mr. Frank Lloyd, Coombe House), whose head gardener (Mr. M. E. Mills) staged a collection of cut blooms of bush Chrysanthemums, Anemones, and Magnolia grandiflora, and from Mr. J. R. Ball, head gardener to Mr. A. D. Klaber, Northey, South Norwood, came cut blooms of Salvia Red Dragon and a seedling Helianthus.

SCOTTISH HORTICULTURAL ASSOCIATION.

The monthly meeting of the Scottish Horticultural Association was held on Tuesday evening the 6th inst., in Dowell's Rooms, Edinburgh. The attendance was large, and the meeting was presided over by the president of the

association, Mr. J. W. McHattie, superintendent of the Edinburgh Parks. The subject of the lecture was "Four Trees on Walls, &c.," and the lecturer was Mr. W. M. Macdonald, gardener to J. D. Fletcher, Esq., Rosehaugh, Rosneath. As was expected by those who had the pleasure of hearing Mr. Macdonald's lecture on Pears last year, the subject was most ably handled, and much valuable information conveyed in a lucid manner. The interest of the meeting was much enhanced by a number of specimens of Pears grown on walls, brought by Mr. Macdonald from Rosehaugh. The other exhibits were composed mainly of Chrysanthemums, and an award of merit was given by the committee to Messrs. James Grieve and Sons, Redbraes Nurseries, for a white sport from C. Marie Masse, named White Duchan. This should be a useful addition. The usual votes of thanks were awarded.

LIVERPOOL ROOT SHOW.

THE fourteenth exhibition of this society was held in Great Nelson Street, Liverpool, on Saturday last. The entries (upwards of 800) were a little under the average, but the quality throughout was well maintained. An improvement was made by increasing the size of the tent, so that all the exhibits were arranged under cover. The Potatoes, as usual, were of the first importance, and although some of the specimens showed the effects of bad weather the general condition of the tubers was excellent.

POTATOES.

White early kidney, six tubers: Mr. B. Ashton, Latham, won with finely-formed Sir John Llewelyn; second, Mr. James Johnson, Scarlebrick, with White Beauty; third, Mr. G. Ashley, Manchester, with Duke of York.

Early Sutton's Regent: The prize winners were Messrs. T. Guy, Edward Alty, Ormakirk, and H. Jenkins, Ashton. Early white round: Mr. G. Ashley (with Sutton's All) and Mr. J. Johnson (with Early Oxford), and Mr. E. Alty (with Best of All) were the successful exhibitors.

White second early kidney: Mr. J. Eccles, Almsdale, and with Crocus Kidney: Mr. J. Johnson, second, with Weststock Kidney; Mr. T. Almond, Magull, third, with Cross Kidney.

White round, second early: Mr. E. Davies, Partington, won with large Windsor Castle; Mr. J. Haycox, Rains, second, with the same variety; Mr. B. Ashton, third, with Carter's Snowball.

Early or second early, any other shape: First, Mr. J. Niven, Griffe, N.B., with clean tubers of World's Fair; Mr. D. Oldfield, Altrincham, second, with British Queen; Mr. J. Johnson, third, with Ideal.

Snowdrop or Lord of the Isles: Mr. J. Johnson won with Lord of the Isles; Colonel E. Ireland Blackburne, and Mr. B. Ashton won the remaining prizes with Snowdrop.

Reading Giant or Colossal: Mr. D. Oldfield, first, with Reading Giant; Mr. B. Ashton, second, with Colossal; and Mr. J. Parker, Irlam, third, with Reading Giant.

Sutton's Abundance: The winners were Messrs. G. Ashley, B. Ashton, and E. Harrison, Preston. Sutton's Satisfaction: The prize winners were Messrs. J. Johnson, B. Ashton, and G. Ashley.

Up-to-Date, General Roberts, or Scottish Triumph: Mr. E. Alty led with well-shaped tubers of the first-named; Mr. S. B. Croxton, Birkenhead, second; Mr. James Parker, with Up-to-Date, the remaining award.

Late Maincrop or Langworthy: Mr. B. Ashton led with clean specimens of the former; Mr. J. Johnson, second, with Langworthy; and Mr. J. R. Newton, Warburton, third, with the same variety.

Late kidney: First, Mr. J. Parker, with well-shaped Beak of England; second, Mr. J. Haycox, with Daniel's Jew Sensation; and Mr. D. Oldfield, third.

Late round, single variety: First, Mr. E. Davies, with large tubers of Industry; second, Mr. D. Oldfield, with Dumfries Model; third, Mr. J. R. Carter, with The Crocus.

Late, any other shape: First, Mr. D. Oldfield, with The Crocus; second, Mr. O. Roberts, with Scottish Chief; third, Mr. W. Stansbury, Hope-in-Dimmore, with Zion House.

Messrs. Sutton and Sons, Webb and Sons, W. L. Hutton, J. Niven, and John Shore and Son gave special prizes. There were many other single dish classes for vegetables.

FRUIT.

Six culinary Apples: Messrs. W. Mackerrall, B. Ashton, and Thomas Lunt, Halewood, were the winners. Six dessert Apples: Messrs. W. Mackerrall (with Ribston Pippin), B. Ashton, and Thomas Lunt.

Six culinary Pears: Mr. B. Ashton (with large Pittamston Duchesse), Messrs. T. Brocklebank, and W. Mackerrall. Six dessert: Messrs. B. Ashton (with Marie Louise), E. Rainford, and W. Mackerrall.

Any other variety of fruit: Mr. B. Ashton, first, with well-coloured Muscat of Alexandria Grapes; Colonel E. Ireland Blackburne, with Madresfield Court Grapes; and Mr. T. Guy, with Sea Eagle Peaches.

Messrs. Thomas Guy, W. Stansbury, J. Davies, B. Ashton, W. Mackerrall, Thomas Lunt, and T. Brocklebank were among the other chief prize winners in the fruit classes.

Exhibits not for competition included Potatoes, by Mr. J. Shore, Liverpool, and Mr. J. D. Rawline, Liverpool; and Messrs. Gartons, Warrington, roots and seeds.

Among the non-competitive exhibits Messrs. Dickson, Chester, had a good display of flowers in variety and Potatoes; Messrs. Gartons, Warrington, showed roots and seeds. Mr. J. Shore, Liverpool, and Mr. J. D. Rawline, Liverpool, also exhibited.

Mr. James Lunt successfully carried out his secretarial duties.

BECKENHAM HORTICULTURAL SOCIETY.

THE first lecture of the winter season was given by Mr. Cecil Hooper, F.R.H.S., M.R.A.C., F.S.I., on the 9th inst., on "Spraying Fruit Trees and Packing Apples as Practised in Canada." The chair was taken by Mr. A. J. Lane, chairman of the Urban District Council. The lecturer said

* "The Book of Herbs." By Lady Rosalind Northcote. (John Lane). Price 2s. 6d.

spraying was practised much more in Canada than in England, as insects were more numerous there on account of the large extent of orchards. There they did not plant mixed orchards as here, and he knew of Apple orchards 1,600 acres and Peach 2,000 acres; they gave their trees more space, planting Apples 30 feet and 40 feet apart, which gave ample room for spraying pumps and wagons to be taken between the rows. The trees should be sprayed three times during the summer for insects: First, when the buds are opening; second, just as petals have fallen; and again in a few weeks. For the destruction of insects that chew their food 1000s Paris green, 2000s lime to 100 gallons water; as a fungicide the Bordeaux Mixture; and as a winter dressing 1lb. canitic soda, 1lb. canitic potash to 10 gallons water.

Mr. M. Webster exhibited foliage, bloom, and ripe fruit of *Monarda deliciosa*, and Mr. Crowell three dishes of *Tomatoes Golden Jubilee*, *Perfection*, and a seedling, all fine fruit.

ROYAL HORTICULTURAL SOCIETY.

DRILL HALL MEETING.

THERE was a good display of flowers and fruit on Tuesday last in the Drill Hall. Dahlias, Michaelmas Daisies, and even Roses were prominent among hardy flowers, while Begonias and Orchids largely accounted for the display by exotics. Apple trees in pots were finely shown by Messrs. W. Paul and Son, and an award of merit was given to a Melon and an Apple respectively. Mr. A. H. Pearson, who acted as chairman, secretary, and reader of the paper, announced the names of sixty-four new Fellows, making a total for the year of 1,205. Mr. Pearson afterwards read a paper on "Autumn Strawberries and Raspberries," by Mr. James Heddon, who was unable to be present.

ORCHID COMMITTEE.

Present: Messrs. Harry J. Veitch (chairman), James O'Brien, de B. Crawshaw, Walter Cobb, H. M. Pollett, H. Ballantine, Jeremiah Coleman, Francis Wellesley, James Douglas, W. A. Binney, G. F. Moore, A. A. McBean, F. W. Ashton, E. Hill, M. Gleeson, W. H. White, W. Boxall, W. H. Young, H. A. Tracy, J. Wilson Potter, and H. Little.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited a splendid lot of *Cattleya labiata*, the plants flowering freely and the blooms of good form and colour. Several hybrid *Cattleyas* and *Laelio-Cattleyas* were also shown; for instance, C. Mantini, C. Wendlandiana, C. Mrs. J. W. Whiteley, L. Mrs. M. Gratrix, L.-C. Aphrodite, L.-C. haroldiana, L.-C. Antimachus var. carnea, L.-C. Norba superba, L.-C. dominiana langleyensis, C. Eald, and C. Empress Frederick var. Leonatis. Silver Flora medal.

H. T. Pitt, Esq., Stamford Hill, N. (gardener, Mr. F. W. Thurgood), exhibited a miscellaneous group of Orchids that contained many good things. *Cattleya* Mrs. J. Whiteley, C. labiata, L.-C. eximia, C. aurea, C. Mrs. Pitt, L.-C. Adolphus superba, Cypridipedium Brownii, Dendrobium Victoria Regina, Sophro-Cattleya eximia, Vanda kimbaliensis, and *Odontoglossum crispum* were the most notable. Silver Flora medal.

In the group set up by Messrs. Sander and Sons, St. Albans, were many good plants. *Laelio-Cattleya* Henry Greenwood (L.-C. schilleriana x C. hardyana), L.-C. blechleyensis, *Cattleya gauthieriana* (C. Schröderi x C. Leopoldii), L.-C. Normanii superba (L. pumila x C. dowiana), C. gaskelliana var. Helene, L.-C. blechleyensis Illuminator, L.-C. gottoliana (C. Warnerii x L. tenebrosa), L.-C. gottoliana giganteum, L.-C. luminosa, Vanda corulea, Cypridipedium cananthum superbum, Miltonia spectabilis marginata, and Cypridipedium Miss Louisa Fowler were among the best. Silver-gilt Flora medal.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, showed several well-flowered Orchids, including *Cattleya Mantini* nobilior, C. Maronii, Dendrobium formosum giganteum, Miltonia candida, *Odontoglossum grande*, L.-C. Intermedia Savas, *Oncidium orthothymum*, O. c. album, *Madevallis Crookii* (new, with small white sweet-scented flowers), and *Trichopilia nobilis*. Silver Banksian medal.

F. Wellesley, Esq., Westfield, Woking, showed *Laelia juvenilis superba*.

A cultural commendation was given to *Laelio-Cattleya* x *Nyssa superba* shown by Mr. E. Hill, gardener to Lord Rothschild, Tring.

De B. Crawshaw, Esq., Rosefield, Sevenoaks, showed an *Odontoglossum* hybrid, O. crispum crossed with O. wilkeanum (heavily blotched with brown upon yellow) had reverted to O. crispum pure and simple.

J. Forster Alcock, Esq., Northchurch, showed well-bloomed *Odontoglossum grande*.

NEW ORCHID.

An award of merit was given to *Laelio-Cattleya Norba superba*.—*Cattleya Mossae* and *Laelia xanthina* are the parents of this Orchid. The sepals and petals are a pale ochre yellow colour, while the front of the lip is lilac-rose, and the throat deep yellow. The marking on the lip is very pretty, the colouring consists of lilac-rose dots, almost merging into each other, upon a paler ground. This is a medium-sized flower, in which the soft tints of sepals, petals, and lip associate pleasingly. From Messrs. James Veitch and Sons, Limited, Chelsea.

FRUIT AND VEGETABLE COMMITTEE.

Present: Messrs. George Bunyard (chairman), Joseph Cheal, Henry Ealing, T. W. Bates, S. Mortimer, Alexander Dean, Edwin Beckett, Horace J. Wright, J. Jacques, G. Reynolds, C. G. A. Nix, F. L. Lane, J. Willard, G. Norman, George Wythes, A. H. Pearson, Owen Thomas, and George H. Mayoock.

Mr. William Howe (gardener to Lady Tate, Park Hill, Streatham Common, S.W.) exhibited a collection of Grapes. They included some excellent Alicantes, which were cut from a vine that has carried a crop of 100 bunches annually for the last twenty-five years. Twelve bunches of Alicante were shown, their aggregate weight being 46lb. Chasselas Napoleon was very well shown; Muscat of Alexandria and Gros Colmar were the other varieties. The Muscats were

somewhat lacking in colour, due no doubt to the sunless summer. Silver-gilt Knightian medal.

Messrs. William Paul and Son, Waltham Cross, Herts, exhibited a group of Apple trees in pots bearing very good crops of really fine fruit. Gasconne's Scarlet Seedling, Sandringham, Blenheim Orange, Collini Pippin, Alfriston, Peasegood's Nonsuch, Cox's Orange Pippin, Lane's Prince Albert, Cox's Pomona, Bramley's Seedling, Emperor Alexander, and Bismarck were perhaps the best among an excellent lot. Silver-gilt Knightian medal.

Mr. William Beale, gardener to E. C. Hambrough, Esq., Hayes Place, Hayes, Kent, showed ten bunches of Black Hambrough Grapes. The berries, of medium size, were splendidly coloured, and the bunches were large. Silver Knightian medal.

The new Grape, Melton Constable Seedling (Lady Hastings x Gros Colmar) and Apple Blenheim Orange were shown by Mr. Jabez Ambrose, nurseryman, Chessnut.

Strawberry St. Joseph, grown in the open, was well shown by Mr. Harris, The Gardens, Bucklebury Place. Vote of thanks.

Fruits of the Strawberry Raspberry (*Rubus roseifolius*) were exhibited by Mrs. Gladstone, 38, Ladbroke Grove, W. This is a very pretty fruit, but of poor flavour. It is not, as the name would imply, a hybrid between the Strawberry and the Raspberry, but is a *Rubus* species, whose fruit bears a resemblance to the Strawberry.

Mr. Charles Webster, Gordon Castle Gardens, Fochabers, N.B., showed Plum Gordon Castle, a late variety of Cox's Golden Drop shape, and much resembling the Kelsey Plum in colour.

Bottles of Elderberry wine were shown by Mrs. Sophia Miller, Marlow. The wine was excellent, and we are glad Mrs. Miller has taken the opportunity of bringing this neglected winter beverage to notice.

Messrs. Dobbie and Co., Rothesay, N.B., showed Cabbage Dobbie's Dwarf Blood Red and Shallot Dobbie's Large Red, some from seed sown in March, 1903, others from bulbs planted in February, 1903.

NEW FRUITS.

An award of merit was given to *Melon Barnes Fiscal Problem*.—This is a good-sized round, well-netted Melon of handsome appearance; in fact, one of the best-looking Melons sent to the Drill Hall this year. The skin is creamy yellow, and marked with a heavy netting; the flesh is scarlet, juicy, and of very good flavour. It seems a pity that so good a Melon should be burdened with so inappropriate a name. From Mr. W. Barnes, gardener to A. T. Walter, Esq., Bear Wood, Berkshire.

Apple Middle Green.—This new fruit is the result of a cross between Frogmore Prolific and Blenheim Orange, and appears to be an excellent Apple. It is at its best now, and should prove a valuable early variety. In appearance and in size it resembles Cox's Orange Pippin a good deal. It is beautifully coloured, the ground colour bright yellow, splashed and streaked on the sunny side with red. The flavour is first-rate. From Messrs. James Veitch and Sons, Limited, Chelsea.

FLORAL COMMITTEE.

Present: W. Marshall, Esq. (chairman), Messrs. H. B. May, C. T. Drury, George Nicholson, R. Dean, James Walker, Amos Perry, John Green, J. F. McLeod, William Howe, G. Reuthe, J. Jennings, Charles Dixon, J. A. Nix, Charles Jeffries, C. J. Salter, William Cuthbertson, Charles E. Pearson, E. C. Notcutt, Charles E. Shea, W. P. Thomson, E. H. Jenkins, Charles Blick, Edward Mawley, and George Paul.

A large, varied, and important grouping of Michaelmas Daisies came from Messrs. William Cuthbertson and Sons, Highgate, the group extending some 40 feet or more, included many good things, notably those of the A. ericoides and A. cordifolius groups. Of the latter, A. c. elegans is one of the best, a mass of light blue starry flowers, that renders it most pleasing; Esther, pink; Delight, white; Katie, a nice blue; Duchess of Albany, a bluish form of pinnatis; and Golden Spray, so named, we presume, from its golden disc, were among the more prominent. *Phytolacca decandra*, with Bamboos and Eulalias, assisted greatly in the arrangement. Silver Banksian medal.

Messrs. George Bunyard and Co., Maidstone, in addition to a large array of Michaelmas Daisies in the cut state, set up good examples of *Lobelia Queen Victoria*, *Helium autumnale*, *Tritoma grandis*, *Physalis Franchetii*, *Campanula Bourghatii*, *Tritoma Nelsoni*, *Aster Amellus Framfield*, A. turbinellus elegans, *Helium pumilum magnificum*, *Polygonum amplexicaule*, *Helipais B. Ladhami*, &c.

Frank Lloyd, Esq., Coombe House, Croydon, showed a nice batch of Begonias of the Lorraine type in pink and white forms.

Messrs. Ambrose and Son, Chessnut, Herts, set up a mixed group, in which cut Tree Carnations, Ferns, Roses, Lily of the Valley, and Lilies of the auratum and tigrinum section figured more conspicuously. Bronze Flora medal.

Messrs. T. S. Ware, Feltham, had an admirable arrangement of Dahlias, well disposed throughout. There were excellent groups of Alpha, Roogalli, orange-scarlet; H. J. Jones, yellow; Galliard, fiery scarlet; Kriemhilda, white and rose; J. A. Jackson, crimson-maroon; Zephyr, rose-carmine; Mrs. E. Mawley, yellow, &c. There were many other kinds in single flowers, and with Ferns and other things formed a most pleasing arrangement. Silver-gilt Banksian medal.

A capital lot of Dahlias of the Cactus type came from Messrs. Hobbles, Limited, Dereham. The best were Fred Cobbold, Aunt Chloe, Ida, yellow; Dainty, yellow, rose tinted, very charming; F. H. Chapman, orange; J. H. Jackson, maroon; Etna, rose-lilac and fawn base; Lord Roberts, white; Veauvius and Ibis, intense orange. Effective and Amos Perry were also well shown. The group was finely arranged. Silver Banksian medal.

A nice batch of Tree Carnations Godfrey's Pride, pink; Floriana, deep pink; and others were shown by Mr. Godfrey, Ermoth. The same exhibitor had many Chrysanthemums, as M. Mestruier, yellow; Le Pactole, orange and yellow;

Safeguard, deep pink; Harry Govie, orange; Pink Beauty and others. A few blooms of the large-flowered section were also staged. Bronze Banksian medal.

Veronics of the shrubby set, Begonias of the Lorraine group, with Tree Carnations and Bouvardias came from Mr. H. B. May, Edmonton. In the latter group we noted B. Jasmineflora, The Bride, Elegans, Priory Beauty, King of the Scarlets, Humboldt corymbiflora, Pride of Brooklyn, fine white, Vreelandi, Maiden's Blush, President Cleveland, Mrs. B. Green, pink, were all fine. It was a pretty group of choicely grown subjects.

Messrs. Crane and Clarke, March, Cambridgeshire, showed Tree Carnations Lord Rosebery, crimson; and Enchantress, pink; the latter of good size, and both free in flowering.

Messrs. J. Cheal and Sons, Crawley, showed a fine lot of single Dahlias that by their appearance had not seen much of the recent bad weather. Some good ones were William Parrott, Beauty's Eye, mauve; Polly Eccles, orange; Hilda, white and yellow; Northern Star, Paragon, Veauvius, scarlet; Eric, deep fawn and orange red; Princess of Wales, good mauve; Miss Roberts, yellow; The Bride, Demon, maroon, &c. Some nice Pompon sorts were also shown. Silver Flora medal.

A large group of *Draena Victoria*, consisting of some dozen admirably grown plants came from Messrs. W. Bull and Sons, Chelsea. Several of the examples were perfect and splendidly coloured. Cultural commendation.

Early-flowering Chrysanthemums were from Messrs. W. Wells and Co., Limited, Redhill. Carrie, gold; Polly, orange; Le Pactole; Keggio, white; Rosie, chestnut; Rubis, purple wine colour; and Nivette, white, were among those shown. Some good single seedlings were shown, also Merstham, yellow, and Mrs. Pockett, of the large flowered group. Bronze Banksian medal.

Mr. G. Reuthe, Keston, Kent, had a small basket in which *Crocuses*, *Cyclamen hederaefolium*, *Nerines*, *Shortia*, *Lobelia Queen Victoria*, with a few *Asters* of the A. ericoides and cordifolius group were seen.

A very effective and showy lot of zonal Pelargoniums were staged by Messrs. Veitch and Sons, Limited, Chelsea. Being dwarf and well-grown and flowered, the plants attracted a large number. We take Mary Seaton, scarlet, white eye; Dryden, scarlet and white; Nicholas II., crimson-scarlet; Rosy Morn; Mrs. Norman, pink; Enid, bright scarlet; St. Cecilia, fine pink; Wordsworth, intense scarlet; and Snowdrop as among the best, and all single flowered. *Gesnera oxoniensis*, with dark maroon leaves, is very fine as a foliage plant alone. Winter-flowered Begonias Mrs. Heal, the pretty Agatha (pink), Ideals, and B. Agatha compacta were also shown in goodly numbers.

Messrs. J. Jeffries and Son, Cirencester, had a large exhibit of Roses, and, regarded as open air flowers, were extremely good. We noted Ulrich Brunner, La France, Rainbow, Comte Raimbault (deep crimson-scarlet, of which there were many good flowers), Caroline Testout, and Mrs. Grant as among the best. White Maman Cochet and Mme. Pernet Ducher were both in good form. A most welcome October exhibit. Silver-gilt Banksian medal.

Mr. J. Russell, Richmond, staged a huge table of *Aucuba* Vera, dwarf and splendidly fruited, the small plants of 8 inches high bearing a dozen trusses of fruits. There were about 100 plants, and each was a perfect example of its kind. *Eurya latifolia variegata* and *Euonymus radicans variegata* were employed, the latter as a margin, the former in the background.

Mr. Amos Perry, Winchmore Hill, showed a few good *Asters*. *Aster Amellus* var. No. 2 is a superbly coloured form; A. amelloides is also good; A. versicolor nana is distinct in its variation; A. Amellus No. 1 is a larger flower, more starry than No. 2. *Geum Heldreichii superba* was very fine, and a never ceasing bloomer. *Polygonum molle* was in great array, making a fine display with its creamy white cymes. It is an effective tall plant for autumn work.

Tuberous Begonias from Mr. A. L. Gwillim, New Eltham, Kent, were in many shades of colour—yellow, salmon, pink, orange, white, and crimson, the flowers large and most effective.

Mr. E. Potten, Cranbrook, Kent, showed early-flowering Chrysanthemums in variety, the group including the best known of these useful plants now in commerce.

Messrs. James Veitch and Sons, Limited, Chelsea, staged a splendid group in some 100 varieties of Japanese Chrysanthemums, of which Mary Perkins, soft yellow, very large; Calvat's Sun, rich yellow; Miss Mildred Ware, terra cotta, very fine; Sensation, orange yellow, very fine; Miss R. Hunt, crimson and gold reverse; William Duckham, pink with satiny surface; Miss Cicely, gold, very narrow florets; Henry Perkins, mahogany red and yellow; Britannia, rich glistening yellow; Miss Eisle Fulton, pure white; Miss Olive Milner, pink, very beautiful; Donald McLeod, golden yellow; Mrs. Pockett, yellow; Godfrey's King, polished gold and red, a really fine lot for so early a date. Silver-gilt Flora medal.

A nicely arranged group of large-flowered Chrysanthemums arranged with Crotons and Palms came from Messrs. J. Peed and Sons, Norwood. We noted Mrs. Pockett, Miss Cicely, Lily Mountford, pink; E. Bettesworth, amaranth; Soleil d'Octobre, Mrs. Greenfield, Miss Stopford, white, and Baden Powell, chestnut, among the more prominent kinds. *Gloxinias*, *Streptocarpus*, the varying sports of *Begonia Gloire de Lorraine* were also largely shown by Messrs. Peed. Silver Flora medal.

A first-class certificate was awarded to *Nephrolepis Mayi*. As a novelty among Ferns this is one of the most distinct we have seen. It is not, however, easy to describe without technicalities. The habit generally is quite erect, the fronds upwards of 2 feet in length, and these appearing freely from the crown create a density that is most unusual among Ferns. As a distinct plant it is alone remarkable. Shown by Mr. H. B. May, Upper Edmonton.

UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE monthly committee meeting of this society was held at the Caledonian Hotel, Adelphi Terrace, Strand, on Monday

evening last, Mr. Charles H. Curtis in the chair. Four new members were elected and one nominated. The death certificates of two deceased members (Mr. John King and Mr. J. M. Young) were produced, and cheques were granted to their nominees for the amounts standing to their credit in the society's books, being £48 8s. 1d. and £17 9s. 4d. respectively. Seven members were reported on the sick fund. Members and friends requiring tickets for the annual dinner on the 27th inst. will please send to the secretary for them as early as possible. His address is 9, Martindale Road, Balham, S.W.

THE GARDEN CITY.

THE title of this enterprising project does not adequately express the industrial development the promoters have in view. The idea, as far as we understand it, is to endeavour to induce manufacturers to remove their manufactories and workshops from unwholesome and expensive surroundings in our crowded towns and cities to the open country, where land is cheap and the air is pure. The object is praiseworthy, and if it can be successfully accomplished, as its practical and energetic promoters think it can, it promises well for the improvement for the future of our industrial population. That aspect of the question, however, is not for us to discuss. It is because gardening is to be called in as an adjunct to help to make the scheme a success that our representative recently accepted an invitation, with upwards of 100 other Press representatives, to view the 3,800 acres of land recently purchased for the construction of the first garden city in England. Unfortunately the weather was wretched, heavy rain falling incessantly, with high winds, making a full tour of the estate, as had been intended, impossible. However, enough was seen to impress us favourably with the position of the land for the purposes intended. It is in Hertfordshire, near Hitchin, thirty-eight miles from London, Great Northern Railway. The estate consists (in addition to the land) of the pretty villages of Letchworth, Willian, Norton, and Radwell. The outskirt of the estate are beautifully wooded, and the woods it is proposed to preserve, and to build the city in the centre of the estate with good roads radiating in various directions.

To prevent overcrowding in the future each cottage built must have at least one-eighth of an acre of land. It is to this latter point we attach so much importance, believing as we do that in this little garden the workman in time will find salvation from the many ills and temptations which assail him in our crowded towns, and a rest, recreation, and pleasure in his leisure that no other art or craft can possibly give. We understand that this city is to be confined to 30,000 inhabitants, and granting five inhabitants to a house, we shall thus have 6,000 houses, with 6,000 gardens of one-eighth of an acre each, or an aggregate of 750 acres of cottage garden land. With the encouragement of a well-organised garden society, what opportunities are offered here by gardening and allied subjects, such as poultry, bees, &c., for the pleasurable and remunerative employment of the worker and his family in their leisure hours! The value of such gardens will depend greatly on the intelligence and knowledge brought to bear in their arrangement and planting, so that we hope when the time for planting arrives the authorities will exercise some supervision over this work, as well as provide an instructor in gardening to give advice to those who may wish to take advantage of his services and to learn how to make the best of their gardens.

The Horticultural Club.—A most interesting and instructive evening was passed at the club on Tuesday last, when Mr. Charles E. Pearson lectured on "Birds in Russian Lapland." The slides, made from photographs taken by Mr. Henry J. Pearson, were excellent. Mr. H. J. Veitch was in the chair. A report of the lecture will appear next week.

Gift to the Brussels Botanic Garden.—Count Kerchova de Denterghem, president of the Ghent Société Royale d'Agriculture et de Botanique, and recently elected president of council of the Brussels Botanic Garden, has just presented this establishment with

a splendid collection of Ferns, comprising more than 125 varieties. The botanic garden has much appreciated the gift of its new president.

A note from Crawley.—Recently, on the occasion of the home-coming of Mr. and Mrs. Ernest Cheal, and as a welcome to Mr. and Mrs. Annett on their return from Ceylon (Mr. Ernest Cheal being the eldest son and Mrs. Annett the eldest daughter of Mr. J. Cheal) the officials and employees of Messrs. Cheal and Sons, Crawley, were entertained by the firm. Sports were indulged in during the afternoon, and in the evening Mr. J. Cheal gave an account of a recent visit to America, and Mr. Annett of life in Ceylon. Both were illustrated by lantern slides.

Dundee Horticultural Association.—This association made a good beginning with its course of monthly meetings for the winter on the 6th inst. There was a good attendance, presided over by Mr. W. Beas. The subject for the evening was a lecture by the president, Mr. David Storrie, of Storrie Brothers, nurserymen, on Mr. William Watson's historical poem, "The Father of the Forest." It was exceedingly interesting, and the lecturer took occasion in the course of the lecture to point out how even such subjects of reading could be made of value to horticulturists. Mr. Storrie was warmly thanked for this inaugural address.

The new Glasgow park.—One of the most charming features of the new park just gifted to the citizens of Glasgow by Mr. A. Cameron Corbett, M.P., at Thornliebank, is what is known as the Rouken Glen. It has long been famed as one of the prettiest glens within easy reach of Glasgow. John Finlay, the Glasgow poet, who died in 1810, gave a graphic description of the Rouken Glen in one of his poems, and Christopher North speaks of the little waterfall at the upper end of the Capelrig Burn, which flows through it, as "the loneliest of linnas that ever sounded in the solitary silence of Nature." When thrown open to the public it will seem strange to think of the change which has taken place since the time of Christopher North. Some parts of the banks of the glen are very precipitous, and this portion might very easily be spoiled by inartistic treatment. Fortunately, there is no danger of this, since the place will be under the care of Mr. Whitton, the able superintendent of the city parks, whose treatment of the other parks has been so successful. There is an old water-mill in the glen, which, if retained, will add much to the interest of the park.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Names of plants.—W. M.—We cannot tell without a flower. Unfortunately the drawing is not sufficiently clear to enable one to judge. The best way will be to send a specimen. —K. B.—*Oxalis corniculata rubra*.

Carbolic acid as an insecticide (J. McDONALD). This is frequently made use of by gardeners as a wash to destroy garden parasites. It is one of the most effective we have. Of course, great care is needed to see that it is applied in a very weak and diluted form, otherwise harm will follow its use.

Creeper for arched doorway, &c. (ERIN).—Of climbing plants suitable for the purpose named you have the choice of the many beautiful forms of Clematis, of which the old and popular C. Jackmaul is one of the very best, while the large flowers of C. lanuginosa candida or Lady Caroline Neville, both of which are of lighter tints, may prove suitable. Some of the 'toneyuckles, again, are beautiful for this mode of treatment, one of the best being Lonicera japonica. We also know of an archway over a door facing west which is draped with the common Jessamine (Jasminum officinale), and very beautiful it is, being studded with its fragrant blossoms throughout the summer months. The different forms of Ceanothus are scarcely likely to give

satisfaction in the position you name, as sunshine is necessary for the production of flowers. Concerning the Lilies, the better way will be to leave them in the ground, just covering them during the winter with about 3 inches of partially decayed leaves, which will serve not only to keep out the frost, but also to supply nourishment next year.

Plants for Ireland (H. D. R.).—*Leptospermum scoparium*, being the tenderest of the three shrubs you name, should occupy the site facing south, sheltered from the north and east. We should advise you to plant *Pinus* *spora* *Tobira* in the spot facing south-west, and *Rhamnus* *ovata* in that facing the south-east. Of the Clematises you name C. coccinea is the least hardy. All the others, which belong to the large-flowered sections, are of easy culture, although they have a way of dying off suddenly sometimes for no apparent reason. They should flower well on a wall facing east, but cannot be expected to bloom freely if they get but little sun. It is well for their roots and the lower foot or two of their stems to be shaded, but the upper shoots should receive all the light possible to induce a floriferous habit.

TRADE NOTES.

A PRETTY CATALOGUE.

MESSRS. L. BOEHRER and CO. of Yokohama send their prettily illustrated catalogue of bulbs and other flowers of Japan. It is most daintily got up.

WEBBS' SEEDS.

In the large competition, open to the world, of the British Dairy Farmers' Association, held in the Agricultural Hall, London, last week, some of the most important prizes for roots were won by the produce of Webbs' seeds, viz.: First, second, and third prizes, Webbs' Mammoth Long Red Mangel; first prize, Webbs' Smithfield Yellow Globe Mangel; first prize, Webbs' Imperial Swede; and second prize, collection of Webbs' roots. There were 143 entries for these prizes, and, considering the strength of the classes, the remarkable success of Messrs. Webbs' seeds must be very gratifying to this firm.

BEETLECUTE.

MESSRS. VALLIS and CO., the proprietors of Beetlecute, an insecticide which is winning favour all over England and in the Colonies, have just been awarded a medal by the Royal Horticultural Society. The Journal of the society has already recorded the complete success which has attended the use of Beetlecute in their propagating frames and fruit houses at Chiswick. It is not poisonous.

CHANGE OF ADDRESS.

I beg to inform you that Chase's Beetle Poison, established over fifty years at 14, Holborn, London, E.C., and of recent years forwarded by Thomas Chase of 151, Broad Street, Birmingham, having upon the death of Mrs. Chase, sen., been purchased by me, will now be supplied from this address, from where all orders will have prompt despatch.—A. CHASE, 5, High View Terrace, West Norwood.

GARDENING APPOINTMENTS.

MR. WILLIAM H. MORTER has been appointed superintendent of the Birmingham City Parks, in succession to Mr. Samuel Hearn, who has retired after thirty years' service. Mr. Morter has had valuable and varied experience upon Lord Avebury's estate at Farnborough, where he has been head gardener for the past eleven years. In consequence of the retirement of Mr. James Smith, head gardener to the Marquis of Lifford at Hopetoun House, through ill-health, the appointment has been conferred upon Mr. Thomas Hay, at present foreman at Hopetoun. Mr. Hay is a comparatively young man for such an important charge, but in consequence of the ill-health of Mr. Smith for some time he has had practically the entire charge of the gardens. He is a native of Banffshire, and served his apprenticeship at Duff House, in that county, under Mr. Brander. After pursuing his calling and improving himself in several other places he was for three years foreman at Terregles, Dumfries, under Mr. John McKinnon. He then secured an appointment as foreman at Hopetoun House, where he has acquitted himself so as to earn the approbation and confidence of his noble employer. Mr. Hay's success will give great pleasure to his many horticultural friends.

PUBLICATIONS RECEIVED.

WE have received from Messrs. George Newnes, Southampton Street, the October number of the Strand Magazine, which has begun a new series of Dr. Conan Doyle's Sherlock Holmes, the Wide World Magazine, the Captain, and the last part of the "Century Book of Gardening." An appendix to this will appear in due course.

CATALOGUES RECEIVED.

General Nursery Stock.—Messrs. Peter Henderson and Co., 85 and 87, Cortlandt Street, New York; L. Späth, Baumchulenweg, Berlin.
Trees.—Messrs. W. and T. Sampson, Kilmarnock.
Roses.—Messrs. Frank Cant and Co., Braiswick Row Gardens, Colchester.
Hardy Plants.—Messrs. V. N. Gauntlett and Co., Redrath Novelties for 1905-6.—Ernest Benary, Erfurt, Germany.
Autumn Catalogue.—Messrs. H. Cannell and Sons, Swanley Kent.

* * The Yearly Subscription to THE GARDEN is: *Ireland* 15s.; *Foreign*, 17s. 6d.

THE GARDEN

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[OCTOBER 24, 1903.]

PROPOSED AUTUMN ROSE SHOW.

WE hear with pleasure that the National Rose Society contemplate holding an autumn show in the new Hall of the Royal Horticultural Society next September. We have constantly urged that to confine the Rose shows to July is to follow the ways of generations ago, when the Hybrid Perpetuals enjoyed their brief summer season, and the beautiful Tea and Hybrid Tea Roses were yet unborn. And this autumn show will give an increased zest to the culture of the Rose in British gardens, and bring forward the great charm and variety that the garden can display when even September has departed, unless a series of frosts puts an end to open flowers and developing buds.

It will be interesting to see in what form the schedule of prizes will be presented. Of course a show flower is a thing of beauty; and then there is the pleasure of meeting in friendly rivalry to win prizes for exhibits that represent years of patient work and keen mastery of details. Exhibitions of Roses, of the Teas and Hybrid Teas in particular, are quite possible when the Michaelmas and Moon Daisies make clouds of blue and white in September days, and the shows of summer are almost forgotten.

We enjoyed a few hours in a garden chiefly of Tea Roses on October 17 last, and could have gathered several blooms that the exhibitor would not have passed by in July, and this in a year of rain and cloud. The garden was full of Rose blooms, which were warm in colouring, firm in texture, and richly fragrant.

The National Rose Society has acted wisely in making this new and striking departure. That such an event should be possible indicates the tremendous work that has been accomplished in hybridisation during recent years, and it will be interesting to compare the Rose flowers of July with those of September. The Marie van Houtte will have a deeper margin to its creamy petals and the Papa Gontiers a richer hue, but those who enjoy the autumn time of the year will be glad of an opportunity to see the flowers that bloom not sparingly but profusely, even when the first frosts have shattered the Dahlias and made dreary patches of summer exotics.

Those who are responsible for the management of the National Rose Society must

remember that the times have changed and are changing. It is no longer a society composed of members whose first thought is an exhibition of blooms in boxes, but during the past three years the remarkable list of new subscribers comprises for the most part Rose lovers who simply visit the exhibitions to see new and rare varieties that will make a brave show of colour in the garden over as long a season as possible. That is one aspect of the society's work, and, of course, the other is to continue the great competitive displays in which all keen rosarians are deeply interested.

We do not know what form the schedule of this proposed autumn show will take, but probably the competitive classes will be small and include the China and other classes which are in beauty during the first weeks of autumn. We predict a beautiful display. Many gardens are full of Roses even in this miserable year, and given a fine autumn the display should prove one of the most attractive of all the flower exhibitions of 1904. It will certainly possess an element of novelty, which is something in these days of flower shows which follow one another with almost wearisome persistency and have so much in common.

A NATIONAL POTATO SOCIETY.

THERE is a movement afloat the object of which is to form a national society for the improvement, classification, and general encouragement of the Potato and its culture. The promoters say, with a good deal of reason, if there be needful national societies for certain well-known flowers—Roses, Dahlias, Carnations, Sweet Peas, Chrysanthemums, &c.—that it seems strange that in the case of a garden product of such immense importance to the nation, both commercially and otherwise, as is the Potato, no body should exist that can in any way give it that assistance nationally that is now given to flowers that, however beautiful, are, after all, but inferior products. Next to Wheat we have no home-grown vegetable product that enters so largely into the people's food as does the famous esculent, and if any society can in any way help to make that esculent of greater value and usefulness to the people than it now is, real good service will be done. It is of some importance to know that so far the suggestion as to the formation of a society comes from impartial sources. Bodies of this kind—as we see, unfortunately, in connexion with some popular flowers—consist largely of raisers and traders, who have too much pecuniary interest in their products to render them quite impartial judges. It is not difficult to find plenty of people interested in

Potatoes that have no such pecuniary objects, whilst raisers of novelties are comparatively few. The reference to this proposal, which comes just now at a very appropriate moment, naturally carries one's thoughts back to the days of the old international Potato exhibitions, when, without doubt, through their agency very much was done to improve and popularise the Potato. Those exhibitions commanded wide interest, and were distinctly objects of beauty. It was to be deplored that those shows fell through, but they did so. They were managed by a committee that had no very primary objects. Still, they did great good.

The promoters of the present movement, however, have wider aims than those that existed some twenty years ago. Not only do they wish to see at least one great annual show of tubers in a central place, but they wish to see established several really practical well conducted trials of new and old varieties annually also. At present we see evidences of a desire to make outrageous prices for some new varieties, such as there can be no justification for. It is the outcome of a determined effort to boom novelties for the purpose of securing, whilst they are not yet plentiful, abnormal or fancy prices. This is not a thing which commends itself to high-class traders, but seems to be a favourite method of creating an artificial demand in other quarters. It is such things as this that the promoters of the proposed society hope to correct. Wonderful results in cropping obtained artificially are published far and wide, true or untrue, but there exists no public body to control assertions of this description. Now, were there say a dozen trial or testing stations in the kingdom, each one controlled by a responsible branch committee, each station so far as possible representing diverse soil, and in each case tubers of the same varieties were planted under the same conditions and treated alike throughout the season, it is obvious that the real merits of all the varieties planted must be in that way fully discovered. Not only would novelties show how far they were wonders or otherwise, but in the course of years it would be possible to determine how far any older varieties, their seed tubers being changed from plot to plot each year, would show evidence of that deterioration of which much is heard but is not always fully proved. In any case it is evident that the Potato society, if formed, would have no difficulty in finding a very wide field for its operations, and could in time render to the Potato very valuable service. A. D.

KEW NOTES.

INTERESTING PLANTS IN FLOWER.

Temperate House.

GREVILLEA ALPINA, G. Banksii var. Fosteri, G. thelemanniana, and Leonotis dubia.

Orchid Houses.

Acampe papillosa, *Bulbophyllum rufinum*, *B. sebellarum*, *Calanthe madagascariensis*, *C. vestita* varieties, *Catasetum fimbriatum*, *C. tridentatum*, *Cirrhopetalum gracillimum*, *Coelogyne fimbriata*, *Cymbidium gammieanum*, *Cynorchis lowiana*, *C. purpurascens*, *Cypripedium* (various species), *Dendrobium capituliflorum*, *D. Phalaenopsis*, *D. strongylanthum*, and others, *Eulophia pulchra*, *Lycaste Skinneri*, *L. xytriphora*, *Macradenia lutescens*, *Maedevallia bella*, *M. Chimera* var. *Wallisii*, *Maxillaria grandiflora*, *M. puncto-striata*, *Octomeria gracilis*, *Odontoglossum grande*, *O. madrense*, *Oncidium crispum*, *O. varicosum*, *Platyclinis cobbiana*, *Pleurothallis maculata*, *P. pulchella*, *Restrepia striata*, *Rodriguezia secunda*, and *Vanda kimballiana*.

T. Range.

Amasonia calycina, *Barleria cristata*, *Clerodendron speciosum*, *Hymenocallis macrostaphana*, *Nerine* (various species and varieties), and *Tetranema mexicana*.

Greenhouse.

Bouvardias in variety, *Calceolaria Burbidgei*, *Chrysanthemums* in variety, *Erica caffra*, *E. gracilis*, *Fuchsia simplicicaulis*, *Geraniums* in variety, *Jacobinia chrysostephana*, *Lantanas* in variety, *Salvia azurea*, *S. splendens*, and many other things.

Outdoors.

Colchicums in variety, *Asters* in variety, *Erica ciliaris*, *Erica maweana*, and other things.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 27.—Royal Horticultural Society's Drill Hall meeting, 1—4 p.m.; meeting of the committees at 12 noon; lecture at three o'clock; Annual Dinner of the United Horticultural Benefit and Provident Society, Holborn Restaurant, at 6.30 p.m., Mr. Peter Barr in the chair.

October 28.—Horticultural College, Swanley, meeting at 24, Park Lane (Indian Room) at 3.30 p.m., by kind permission of Lord and Lady Brassey.

October 30.—The Earl of Onslow, G.C.M.G., opens the new County Technical Laboratories, Chelmsford, at 3.30 p.m.

November 2.—Truro Chrysanthemum Show (two days).

November 3.—Southampton (two days) and West of England (two days) Horticultural Shows.

November 4.—Highgate (three days), Kent County (two days), Cardiff (two days), Hereford (two days), Ascot (two days), and Northampton (two days) Horticultural Shows.

November 9.—St. Neots Chrysanthemum Show.

November 10.—Royal Horticultural Society's Drill Hall Meeting; National Chrysanthemum Society's Exhibition at the Crystal Palace (three days); Devices and Oxford Chrysanthemum Shows.

November 11.—Buxton, Reading, Liverpool (two days), Hampton, Winchester (two days), and Banbury (two days) Chrysanthemum Shows; East Anglian Horticultural Club Meeting.

November 13.—Blackburn (two days), Leicester (two days), Sheffield (two days), and Leeds Paxton (two days) Chrysanthemum Shows.

November 18.—Hull (two days) and York (three days) Chrysanthemum Shows.

November 19.—Scottish Horticultural Association's Chrysanthemum Show.

Royal Horticultural Society.—Examinations in horticulture, 1904.

I. General Examination.—The society's annual examination in the principles and practice of horticulture will be held on Wednesday, April 20, 1904. The examination will be held simultaneously in as many different centres in Great Britain and Ireland as circumstances may demand, the society being willing to hold an examination wherever a magistrate, clergyman, schoolmaster, or other responsible person accustomed to examinations will consent to supervise on the society's behalf. A

copy of the syllabus may be obtained by sending a stamped and directed envelope to the secretary, Royal Horticultural Society, 117, Victoria Street, London, S.W. Intending candidates should send in their names not later than March 1. Copies of the questions set at the examinations, 1893—1902, can be obtained at the Royal Horticultural Society's office, price 1s. *II. School Teachers' Examination.*—The society will also hold an examination in cottage gardening on Tuesday, June 21, 1904. The examination is intended for, and will be confined to, elementary school teachers. It has been undertaken in view of the increasing demand in country districts that the schoolmaster shall be competent to teach the elements of cottage gardening, and the existing absence of any test whatever of such competence. The general conduct of this examination will be on similar lines to that of the more general examination, save in obvious points on which they would not apply. Full particulars will be issued on and after January 1, 1904.

The next meeting of the fruit, floral, and Orchid committees of the above society will be held on Tuesday next in the Drill Hall, Buckingham Gate, Westminster, 1—4 p.m. A paper on "Pruning Roses," by M. Viviani Morel, will be read at three o'clock. At a general meeting held on Tuesday, the 13th inst., sixty-five new Fellows were elected, making a total of 1,206 elected since the beginning of the present year.

Scottish Chrysanthemum shows.

The following list of Scottish Chrysanthemum shows and the dates on which they open may be of value to Scottish readers: November 12, Stirling, two days; November 14, Beith; November 17, Dalry (Ayrshire); November 18, Ayr, Dumfries; November 19, Edinburgh, three days, Kilmarnock; November 20, Aberdeen, two days; November 27, Dundee, two days, and Dunfermline, two days.

The Horticultural College, Swanley.

A meeting will be held in the Indian Room at 24, Park Lane, on Wednesday, the 28th inst., at 3.30 p.m., by kind permission of Lord and Lady Brassey. An address will be given by Mr. A. D. Hall, M.A., Director of the Experimental Station, Rothamsted, on "Horticultural Instruction for Women." The speakers will be Viscountess Falmouth, Mrs. Garrett Anderson, M.D., the Hon. Sir John Cockburn, K.C.M.G., the Hon. Mrs. Lyttelton Gell, the Right Hon. Sir John Hibbert, K.C.B., Mr. J. C. Medd, and Mrs. Pember Reeves.

County Technical Laboratories, Chelmsford (Session 1903-4).

—The opening of the new buildings in connexion with these laboratories, under the control of the Essex Education Committee, will take place on the 30th inst. at 3.30 p.m. The new buildings are in King Edward's Avenue, and have just been completed at a cost of nearly £12,000. They comprise chemical, physical, and biological laboratories and class-rooms, together with agricultural and horticultural museums and libraries, and provide facilities for systematic instruction in agriculture and horticulture as well as in pure science. There is a large dairy for instruction in butter and cheese making and the treatment of milk, and within three-quarters of a mile is the school garden, three acres in extent, and provided with potting-shed and hot-houses. The laboratories are intended to be a centre for agricultural and horticultural information for the whole county, and they include rooms for the analysis of soils, manures, foods, seeds, &c., and for other scientific work carried on in the interest of these industries. Cards of invitation to the opening ceremony, which must be presented at the door to secure admission, can be obtained from the secretary, County Education Offices, Chelmsford. The laboratories will be open for public inspection from two to five in the afternoon and seven to nine in the evening of the same day.

Spring bulbs again in flower.—A year ago I planted some Holland-grown bulbs of *Polyanthus Narcissi* Newton and Grand Monarque; they bloomed well last spring, and are now, to my surprise, sending up well-developed clusters of bloom again. Some are already fully

out, and there are others to follow. The past summer has been very wet and cool, and we have had no frosts as yet, so that probably the bulbs have not ripened off in a normal manner; it would be interesting to know whether this is a frequent result of such seasons.—A. P. SAUNDERS, *Hamilton College, Clinton, New York.*

Potato trials at Aughton, Lancashire.

—The Potato trials which are annually carried out by Mr. W. L. Hutton of the *Ormakiri Advertiser* are in a season like this, when, owing to the excessive rainfall, disease is causing great havoc, of more than passing interest. The varieties under observation are the newest of the previous season exhibited at the Liverpool Grain, Root, and Fruit show for the special prizes offered by Mr. Hutton, and are carefully planted on strong land in Bold Lane, Aughton, the grower being Mr. Henry Jenkinson, who also lifts and weighs the tubers. It is by such means that a proper estimate of their marketable value can be gauged, and for this Mr. Hutton is deserving of very great thanks for his generous offers. The following results have been obtained:—

Name.	Weight of seed.		Weight produced.			
	lb.	oz.	lb.	small.	large.	total.
Coronation kidney	24	28	1	17		
Carltonians	24	21	2	6		
Enterprise	3	38	3	12		
Edward VII.	24	26	2	14		
Early May	2	14	2	8		
Fylde Wonder	3	41	24	13		
General Buller	24	17	2	9		
Maddock's Excelsior	24	39	3	7		
Niven's Table Talk	24	61	4	26		
New (no name)	24	29	2	5		
New Majestic	34	28	1	16		

* This was a good shape, cropper, and quality.

The growth in every case had been very strong.

Dried Cycas leaves.—The importation of dried *Cycas* leaves has reached fabulous proportions. But a few years ago an importation of 10,000 leaves was regarded as a stupendous transaction. Now millions upon millions are brought over without exciting surprise.—*American Florist.*

Strawberry Sensation.—This new Strawberry is illustrated in this month's *Bulletin d'Arboriculture* by a coloured plate. Messrs. Vilmoren Andrieux et Cie, Paris, have introduced this second early variety to commerce. The plant is vigorous, and produces bright red, shining fruit larger than the average size of most large varieties. The shape is bluntly oblong, flesh red, juicy, and of good quality. The plant is said to fruit very freely; it is already widely grown in gardens in France, and *Le Bulletin* is convinced that it will long be regarded as a valuable Strawberry.

Kniphofia modesta.—Although quite modest in appearance, this pretty little species justifies its culture in gardens by its distinct character as compared with the larger forms of the well-known Torch Lily. It is not suitable for use among coarse-growing plants, and requires a select position to itself, or it may be used in conjunction with other small species such as *K. rufa*, *K. Nelsoni*, *K. breviflora*, and others. It is one of the last to bloom, and the flowers are borne in dense spikes 9 inches to 1 foot long on stems 3 feet high, these springing from a tuft of long, narrow, grass-like leaves. The buds are of a reddish brown tint, while the fully-expanded flowers are pure white; from the mouth of these protrude the orange stamens. It was first discovered on the mountains of Grigalund East at an elevation of 6,000 feet by Mr. William Tyson in 1884, and soon after found in Natal by Mr. J. Medley Wood, curator of the Durban Botanic Garden, who sent it to Kew.—W. IRVING.

Rudbeckia subtomentosa.—This, to me, is one of the most charming of the late-flowering yellow composites, not only for its very prettily formed flowers, from which the black discs show out clearly and strikingly, but also for its always fresh and distinct leafage, which shows no sign of decay right up to the end of the season. Each plant forms a shapely, erect-growing bush, taking to the eye even when out of flower. I should place this among the best dozen of late-flowering herbaceous plants, and it strikes one as strange that it is so seldom seen in borders.—J. C. TALLACK.

Pomological Congress in 1904.—The Pomological Society of France has decided, in reply to an invitation from the Orleans Horticultural Society, to hold its congress at Orleans next year.

Mr. T. W. Brown who left the Royal Gardens, Kew, in 1899, to go as assistant curator at the Botanic Station, Gold Coast, and afterwards was engaged by the Sultan of Morocco to lay out the Palace Gardens at Fez, is now in charge of the laying out of the grounds around the British Pavilion, St. Louis World's Fair grounds. Mr. Brown, we understand, has been commissioned by the British Government to carry out this important work.

Phyllostachys nigra in flower.—It may perhaps be of interest to you to hear that *P. nigra* has flowered here this year. Have you any note of its doing so in other parts of the country? As it has been said that the Bamboo always dies after flowering, perhaps you would be able to say whether this is the invariable experience of English growers, or whether, on the other hand, the death of the plant can be stopped by preventive measures. I have cut off all flowering shoots.—H. E. BISHOP, *Middleton Vicarage, King's Lynn*. [Specimens of this Bamboo in flower were shown from Ireland at the recent exhibition at Chiswick. You should read the note about the flowering of Bamboos in THE GARDEN, page 74.]

Scarcity of fruit in France.—Loss of trade.—The fruit crop is poor this year, says *Le Jardin*, not only in England but also in France, and we, who formerly were large exporters, shall be obliged to have recourse to importation. Such is the result of methods which have not allowed our growers, with rare exceptions, to promote establishments capable of competing with those on the other side of the Atlantic. Thanks to the progress there in the matter of transportation (for instance the introduction of refrigerating cars and cold chambers on board ship) we have already lost to fruits from California and the Cape, the greater part of the English and American markets; and if one is to believe the *Feuille d'information de l'office du commerce extérieur* even the Californian preserved fruits have, by their low prices, less than half that of similar products from France, completely put an end to our trade in the Far East.

The first Daffodil show in South Africa.—The Metropolitan Hall, Burg Street, Cape Town, the scene of many a noisy public meeting, and of more than one political conference, was the Mecca early in September of a large number of horticultural enthusiasts, drawn thither by the Daffodil exhibition organised by the Sea Point Horticultural Society. The show of Daffodils was a fine one, both as regards number and quality of blooms, but there were only two competitors, due doubtless to the fact that the prizes offered were for "the largest and best collection," and not for any particular bloom or group of blooms. The two competitors were Messrs. H. M. Arderne, The Hill, Claremont, and Mr. T. Duncan, of Sea Point, the first prize being a silver Daffodil vase, presented by Messrs. Barr and Sons, of Covent Garden, London. Mr. Peter Barr, the head of the firm, who is known as the Daffodil King, paid a visit to the Colony a couple of years ago, and the vase will be a lasting memento of his brief stay in the Peninsula. The Daffodils were staged on two long tables running down the centre of the hall, and the sight of the golden Narcissi against a background of pale green was one which appealed strongly to all lovers of the beautiful. One table was exclusively occupied by the exhibit of Mr. Arderne, the winner of the vase, who sent no fewer than 1,200 blooms, containing ten varieties, the most conspicuous being the Emperor, Empress, and Barri conspicuus. Mr. Duncan, who has only recently gone in for the cultivation of the Narcissus, sent thirty varieties; Mr. Hutt, of Maitland, contributed nine varieties, while the gardens of Bishopscourt were represented by a large collection of blossoms. The judges were Mr. F. Cartwright and Mr. Chalwin, of the Botanical Gardens, with Mr. G. B. van Zyl, of Sea Point, as referee. They awarded the first prize to Mr. Arderne, and the second to Mr. Duncan, points having been awarded

as follows: Quality, Mr. Arderne, 30; Mr. Duncan, 10. Variety, Mr. Arderne, 10; Mr. Duncan, 30. Quantity, Mr. Arderne, 18; Mr. Duncan, 5. Total, Mr. Arderne, 58; Mr. Duncan, 45. The first prize—the Barr vase—will be offered for competition annually, and will become the property of the exhibitor who wins it twice in succession. The second prize was a silver medal, the gift of the Sea Point Horticultural Society.

The preceding was taken from a local newspaper, and the following comment, also from a South African journal, is interesting: "In the Metropolitan Hall, Burg Street, there is to-day (September 4) by far the finest collection of Daffodil blossoms ever brought together in South Africa—a veritable 'field of the cloth of gold'—and the result of this gathering is a focussing, as it were, of all the golden beauty which Daffodil cups may contain. We have to-day an exhibition of Daffodil blooms which have come to us for very love, an exhibition which proves that devotion to flora as a queen among us is as yet a living truth, and that around the hearts of all true gardeners there is woven 'a thread of twisted gold.' Fifty years ago Mr. Peter Barr, who has earned the sobriquet of the Daffodil King, commenced in earnest the cultivation of his favourite flower, the Daffodil or Narcissus. The bulbs could then be purchased for a penny each. Mr. Barr has lived long enough to see 600 varieties introduced into our gardens, the prices of which range from one penny to fifty guineas, and whilst on a visit here Mr. Barr lectured with so much enthusiasm on his favourite flower that he has largely helped towards the wonderful display of blooms, one amateur, Mr. H. M. Arderne, alone contributing over 1,000, in evidence at the Metropolitan Hall to-day."

Destructive fruit pests.—A paper on "Destructive Fruit Pests," read by Mr. W. Horne, of the firm of Messrs. Horne and Sons, of Cliffe, Rochester, before the Council of the National Fruit Growers' Federation, recently, has been issued in leaflet form. It is particularly interesting from the fact that it treats with Mr. Horne's recent discovery of capturing larvae of the Codlin moth before it changes into chrysalis. At the outset Mr. Horne enumerates five of the principal pests which, he says, they are now able to capture. They are the winter moth, mottled umber moth, March moth, Apple blossom weevil, and Codlin moth. Mr. Horne says it is clear that it is most important to the success of fruit growing that all fruit trees, including Apples, Pears, Plums, and Cherries, should be dressed from October to May, and he intimates that at some future time he hopes he may be able to say how to intercept another pest that is still at large, called tortrix moth.

Early-flowering Chrysanthemums and the weather.—During the fifteen years I have grown these plants outdoors I never remember such trying weather as that through which we have passed during the last three or four months. Throughout June and early July the plants were quite satisfactory, but though in the succeeding months they certainly developed into little bushes, the growth could not ripen owing to the absence of sunshine. When the flowering period came the weight of the flowers was too much for the stems. It was a pitiable sight each morning when an inspection of the collection was made. Before the flowers could free themselves from their soddened condition other heavy falls of rain followed, so that within a few days, or a week at most, the blooms began to damp and decay, until in the end many of them were absolutely rotten. There were occasional intervals of a day or two of fine weather, and in proof of the recuperative powers of the early-flowering border Chrysanthemums it is only necessary to point out how quickly the plants began to reassert themselves, so much so that in a comparatively short time the display was very bright. As an instance I may mention that splendid plants of Goacher's Crimson in the very wet weather were blooming in profusion, but the display was cut short by the flowers damping very badly. But during a spell of dry weather the decay had stopped, and the flowers soon recovered. This experience in a season unique in respect to its

trying climatic conditions should prove most conclusively the value of these plants in a normal season. Well-ripened wood is essential with plants intended for outdoor displays, in which case the flowers are easily maintained on strong and erect footstalks. Though the growths were somewhat green in early September the display made by a dozen to eighteen varieties then in full bloom was very fine indeed, and it was only as these varieties were attaining full development that rain and wind resulted in failure. This present season should not deter intending growers from embarking on their cultivation, as the early-flowering Chrysanthemums have been one of the brightest subjects in the hardy border during the past season, notwithstanding their premature failure.—D. B. CRANE, *Highgate, N.*

Lotus pelliorrhynchus.—There has, I think, always been considerable doubt about this plant growing out in the open, even in this favoured part of England. Here in my garden it grows freely, and during May is a beautiful sight with its Indian red flowers and grey green foliage. It is doing well on a sunny bank, and requires moisture for its roots. My plant has been growing out of doors in its present position for the last three years, and it is spreading extensively.—WILLIAM SICH, *Gunwalloe, Helston, Cornwall*.

Potato Northern Star.—It seems quite evident that those who purchased seed of this Potato at such a high price in the spring will have made a profitable investment, for it appears to have proved an extraordinary cropper. Though there will be large quantities on the market, the price has started high, and it is selling well. At £14 per cwt., which is the lowest price I have yet heard of its being disposed of, it leaves a good margin of profit beyond what would be obtained on an ordinary crop of Potatoes after making full allowance for cost of seed.

Yellow Tomatoes for market.—These are more appreciated than formerly, and I think the time has come when it would pay to grow them in quantity for market. My experience has been in a retail trade, and for the last three years the demand has steadily increased. The first season they sold very slowly, but this year though a much larger quantity was grown it was not equal to the demand, and there has been no difficulty in making 2d. per lb. more for them than for the best red varieties.—A. HEMSLEY.

A remarkable Epidendrum.—When visiting the gardens of Mrs. Loudon, at Allanshaw, Hamilton, N.B., recently, Mr. T. Finnie, the head gardener, drew my attention to a very fine plant of *Epidendrum vitellinum*, bearing some thirty-one racemes of flowers. It is some 2 feet high and 2 feet through. The plant was given to Mr. Finnie twenty years ago, when it had only four or five bulbs, and he has cultivated it with so much skill that it is now almost, possibly altogether, an unique specimen of this *Epidendrum*.—A. P. H.

A charming combination.—The long shoots of the common Virginian Creeper have twined themselves among the branches of a tall-growing Laurel, and it looks as if tongues of flame were thrusting themselves out from amid the deep green of the Laurel branches. In this way the dying year slowly burns itself out in shrubbery, woodland, and hedgerow, and those who seek for rich autumnal hues in vegetation can find them in abundance. In the case of this fiery Laurel Nature had done its work much more deftly than man could perform it, with the further advantage of heightened effect. I have seen bunches of Privet lit up in the same way, just as the festoons of Bryony variegata the russet hedgerows in country lanes.

Marigolds in pots.—African and French Marigolds are unusual subjects to cultivate in pots, but I have at the present time specimens of the former 3 feet or so in height in medium-sized pots which are literally laden with blossom. They are, of course, under glass. One African is of quite deep orange, another is pure deep gold, and no early Chrysanthemum I have seen supplies these colours to such a depth. They require plenty of water on a drying day, as the pots are full of roots, and once a week they have a slight

surface dressing of Clay's Fertilizer, the other of soot. They will no doubt go on blooming so long as the weather keeps mild. The striped French Marigold has formed a dense bush, and is laden with blossoms, with the rich markings belonging to the fine Scotch strains. The peculiar perfume of the Marigolds, being more pronounced in the foliage than in the flowers, is not perceptible unless it is touched; but even if it was apparent it is far more than compensated by the cheerfulness of the blooms in the waning autumn days.—R. DEAN.

Dædalacanthus parvus.—About two years ago this *Dædalacanthus* was given an award of merit by the Royal Horticultural Society under the name of *Dædalacanthus Wattii*. Since then it has made headway in popular favour, one great recommendation being the fact that it may be had in flower throughout the autumn and early winter months. The genus *Dædalacanthus* now includes many of the plants formerly grown under the head of *Eranthemum*, the most frequently met with of which is that formerly known as *Eranthemum nervosum*, but which is now *Dædalacanthus nervosus*. The newer form (*parvus*) bears a certain amount of resemblance to it, but differs in many well-marked features, flowering, as it does, when little more than a foot high, while the flowers, which are in short spikes, are about an inch across and of a deep bluish purple. A succession is kept up from one spike with its large bracts for some time, while frequently sufficient flowers are expanded at once to form quite a cluster. Like most of its class it is of easy propagation and culture, for cuttings strike root readily, and the plants thrive with the treatment given to the general run of stove or intermediate house subjects. During the height of summer it will succeed even in the greenhouse.—H. P.

THE ROSE GARDEN.

AUTUMN PLANTING.

ALL expert rosarians are agreed that autumn planting gives the best results, so that where the land has been prepared or can soon be cleared and trenched, there is no better time than late October and November to carry out the work. Where there is a choice of situations, select a place well away from other trees open to the south and west and even east, but sheltered from north. Do not attempt to plant Roses in shrubberies or near to large rooted trees or hedges, or failure must result. The more open the situation the less liability there is to mildew, orange fungus, and other pests. If amateur growers in a certain district could combine and rent a good piece of farm land, they would frequently be more successful, especially at exhibitions, than is possible in a small garden, but wherever the situation, let the ground be well trenched to a depth of 2 feet or more, taking care to keep the subsoil below, but incorporate with it some basic slag and farmyard manure.

Do not attempt to plant until the ground has been trenched some time to allow the soil to settle down. If the plants arrive in the meantime, strip them of all their foliage and heel in deeply under a north wall or hedge, and water the roots at the same time. In planting I like to give each plant a handful of bone-dust, mixing it well with the soil, and should the staple soil be very wet, it is better to prepare some compost consisting of fine loam or old pot-soil, burnt earth, or burnt garden refuse, leaf-soil, and spent hot-bed manure in equal parts; give each plant a peck of this when planting, allowing it to percolate well among the fine rootlets.

As to actual planting, the main point to remember is to spread out well the roots so that they are not cramped. Two can plant a Rose much better than one. Place the dwarfs or bushes just below where budded, and as most Teas and Hybrid Teas and even H.P.'s are budded on seedling Briar, it will be necessary to take out a deeper hole for these so that the Briar roots can strike down

straight. The Manetti stock and Briar cutting are more inclined to spread. A wider hole, therefore, and not so deep, is best in this case.

The roots of all plants should be gone over with a sharp knife, and the jagged ends cut clean and embryo suckers removed. It is not advisable to cut away the roots recklessly. Where they are of great length they may be shortened a little, but, generally speaking, the more roots a plant possesses, especially fibrous ones, the more successful will it be. Make the soil very firm excepting that on the surface. This I like to leave as rough as possible, especially if the ground is rather wet at the time of planting. As to arrangement, if possible plant in beds or borders that are not too wide, in order that one may cut and tend the plants without treading on the soil. The distance to plant must be somewhat regulated by the vigour of the varieties. Such sorts as White Lady would be none too close if planted 15 inches apart, whereas Margaret Dickson and Ulrich Brunner would benefit by 2 feet each way. Standards and half-standards should be planted about 2 feet 6 inches apart each way. For the latter, as soon as the hole is opened fasten a neat stake in the ground and attach the stem of the tree to it.

When one year old standards are obtained it is best to leave on the stake which is sent with the tree, as this prevents the head being blown out by the wind. After pruning this is not likely to occur. All long shoots on standards or dwarfs should be cut back to about 3 feet.

Climbing, pillar, or pergola Roses need special care as regards the soil. Being permanent they soon exhaust the soil unless a good hole is opened in the first place. One 2 feet wide and 2 feet 6 inches deep is none too much. Where soil is poor a few barrowfuls of good loam and manure will more than repay one for the trouble. We should not see such puny climbers on walls, pillars, and arches if better preparation were given in the matter of initial planting. Where soil is waterlogged give a few inches of rubble, or lay a few drain pipes to the nearest waterway. Borders or beds for Tea and Hybrid Tea Roses should be raised a few inches above the ordinary level, and to do this add plenty of gritty soil, such as clearings from brooks, burnt garden refuse, &c. Even in a wet season like the present Tea Roses in borders prepared in this way have grown marvellously.

As to covering the soil with manure after planting, I believe a more baneful practice was never advised, sun and air being as essential to the roots of plants as to ourselves. If manure be given to established plants let it be forked in at the same time. For protecting Tea and Hybrid Tea Roses in bush form nothing can surpass earthing up round the base to a depth of 3 inches or 4 inches, and if further protection is needed some Bracken Fern, Wheat straw, or Heather is very good. Standards should have some dry material stuffed into the tops, but in all cases remove the litter when the weather is mild. I would urge on planters the desirability of using every available bit of wall space, be it low or high, for the glorious Tea Roses. Get out some good large holes, fill with good compost, and one may grow specimens here equal to and surpassing those seen in pots at exhibitions. PHLOMEL.

ROSE DOROTHY PERKINS.

Of the numerous Roses styled garden Roses, at the present time none excels this American-raised variety for autumn flowering in the open. It is indeed a gem, and, as probably many well remember, it caused quite a sensation at the Royal Horticultural Society's Rose show at Holland House in 1902, when Messrs. W. Cutbush and Son had a gorgeous display of it there. As shown by them the colour was especially pleasing—a rich, soft rose. Thinking what a grand variety this should make for covering a pole in the open I procured from this firm a stout plant, furnished as it was with two shoots 12 feet long, which proved to me what a grand habit the plant has. I prepared a good station and put out my plant from the pot, tying the two shoots to a pole at once in

November. I might say from almost every eye on these two shoots growths were produced of about a foot long, which were terminated with a cluster of rich rose-coloured fragrant flowers. Especially during the month of September were the blooms a blaze of colour, and the length of time each one lasted surprised all who saw them. The growth, too, from the base is most promising. Instead of two shoots there are at least half a dozen. I look upon this Rose as one of the best introductions of recent years. E. MOLYNEUX.

THE FLOWER GARDEN.

AN HOUR WITH THE HOLLYHOCK.*

THE Hollyhock (*Althæa rosea*) belongs to the natural order Malvaceæ, and in the Linnæan classification of plants we find it in the class and order *Monadelphia polyandria*. In the botanical catalogues it is described as a hardy biennial with red flowers, blooming in August indigenous to China, first known in England in 1573. Dr. Turner, however, in a work published in 1564 (nine years earlier!) speaks of it as a well-known plant. According to these authorities, then, whichever may be correct, it is no new candidate for popular favour. But we think it may lay claim to a still higher antiquity. Pliny, in the fourth chapter of his twenty-first book, writes of a Rose with the stalks of a mallow and the leaves of a pot-herb. What can this be if not the flower now under discussion?

The old English writers spelt the word *Hollihocke*, *Holyoak*, and *Holyock*, whence it is supposed to have been derived from the Saxon "*Holihec*." Linnæus considered it a distinct genus, and named it *Alcea*, from the Greek word *Ἀλχῆ*, in allusion to its medical properties, on account of which it was formerly much valued.

In a work translated from the German,† and published in London nearly three centuries ago, we have the following particulars:

"There be divers sorts of Mallows, wherof some be of the garden and some be wild, the which also be of divers kinds. The garden mallow (*Hollyhock*), called the winter or beyond-sea Rose, is of divers sortes, not onely in leaves, stalkes, and growing, but in proposition, colour, and flowers; for some be single, some double, some white, some carnation, some of a cleere or light red, some of a darke red, some gray and speckled." Then follows a description, in which it is called "the Great Tame Mallow, with great round rough leaves, larger, whiter, and unevenner than the leaves of the other hockes or mallows. The stalks is rounde, and groweth sixe or seaven foote high or more. . . . The root is great and long, and continueth a long time, putting forth yerely newe leaves and stalks." It is there called *Malva sativa* and *Rosa ultramarina*.

It is evident that at the close of the sixteenth century the Hollyhock was much prized and generally cultivated; for Gerard, writing at that time, states that it was then sown in gardens almost everywhere. In Gerard's *Herbal* (edition 1636) are three plates of

* This excellent treatise on the Hollyhock is published by kind permission of the author, Mr. William Paul, F.L.S. It is the best history of the flower that has appeared, and we thought that its release in the pages of *THE GARDEN* would be instructive. We have taken this from Mr. Paul's "Contributions to Horticultural Literature" (1892), but it was originally published as a pamphlet, the second edition, in 1855. As it is nearly out of print, and will not be republished, we have ventured to introduce it here.

† "A New Herbal, or Historie of Plants." Translated from the German of Rembert Dodoens by Henry Lyte, Esq. London, 1598.

Hollyhocks: "The Single Garden Hollihocks," which we assume to be the type of the garden varieties of our day; "The Jagged Strange Hollihock," whence apparently have descended *Sulphurea palmata* and others of that strain; and "The Double Purple Hollihock." The writer also speaks of another "which bringeth forth a great stalke, of the height of ten or twelve feet, growing to the form of a small tree. The flowers are very great and double, as the greatest Rose or Double Peiony, of a deepe red color, tending to blackness."*

In Miller's "Gardeners' and Florists' Dictionary" (London, 1724), we find the Hollyhock described as "a plant of considerable variety, bearing red, white, purple, black, and other coloured flowers. They neither want beauty or stature, seldom bearing their flower-stems less than six foot from the ground, and are commonly garnished with their rose-like blossoms above half their height." . . . "Mr. Bradley directs to plant them out into a rich ground, in either September or March, and then they will begin to flower in July or August; and that in order to make their flowers large they should be frequently watered in the summer time; though they die to the ground every winter, they spring again, and will stand several years; and for their largeness and lastingness may very well be planted among the flowering kinds in wilderness walks, or in lines in avenues of trees." Miller informs us that he received seeds from Istria, gathered from plants growing spontaneously in the fields; the plants raised from them bore single red flowers; but other seeds received from Madras produced double flowers of various colours. Plants bearing single flowers might have been expected from seeds gathered in the fields, whereas the latter were probably selected from long-cultivated plants, whence the issue would as a consequence, be more varied and more highly organised.

It is scarcely necessary to say that the Hollyhock is not indigenous to Britain. Linnaeus assigns it to Siberia, but China is generally given as its native place. In the south of China it is found only in a cultivated state; the northern parts and Chinese Tartary are more correctly the districts it naturally adorns. It does not appear to extend to Japan, for in Thunberg's "Flora Japonica" it is spoken of thus: "*Crescit ubique culta. Floret Iunio Iulio. Variat floribus, albis, rubris, plenis et simplicibus.*" The French ascribe it to Syria, and plants bearing yellow flowers have been found wild among the rocks around Kurreechane.

We think, from the evidence afforded, we shall not exceed the bounds of truth in claiming for our flower a 300 years' naturalisation on British soil. We can imagine how much it would be cherished on its first introduction, though the flowers were but single and probably dingy in colour. It was a stately plant—tall, majestic, and not without a share of rude massive grandeur, which would well adapt it for the decoration of early British gardens. As with most flowers of long standing, we have no sources whence to draw the materials for a history of its early development. Such events were not chronicled in the olden times; and hence, for want of facts, we must be content to suggest probabilities, and drop the

early links in the chain of History. Starting from the period of its introduction, and allowing a few generations to be raised successively from seed in an improved soil, it is reasonable to suppose it would become varied in colour, and increase in size and fulness as the natural result of cultivation. This would likely obtain for it an enlarged circle of admirers, which would give fresh impulses to the cultivator, and thus hasten on its civilisation. This state of gradual improvement probably went on for a space of 250 years, and might have continued to this moment, had not one cultivator stepped out of the beaten track, and, working free from professional trammels, followed a course of culture dictated by his own observation and experience. This man was Mr. Charles Baron, a man unversed in garden literature, unused to move among the skilled in the hidden and mysterious art, and probably knowing little of the vegetable kingdom beyond what existed within the boundary of his own small garden plot. The Hollyhock was his favourite flower; to attend to it was his recreation; his labour

skill. As we look upon this flower in its improved condition, we cease to wonder at the rapid increase in the number of amateurs, for what other surpasses it in warmth of colouring, symmetry, and general magnificence? We do not know that we could do better than quote here the remarks of a contemporary writer: "The Hollyhock for several years past has had much to complain of from the undue neglect with which it has been treated. Here and there it has found a discerning patron, but, generally speaking, the floral world has been influenced by a Dahlia excitement, from which it is now subsiding in sober disposition to judge all flowers by their respective merits. The Rose is again the queen, and the Hollyhock is again at court."* It is true the Dahlia, the Pelargonium, and others, have each their peculiar beauties, and their absence would create an immeasurable void in Flora's throng; the only pity is that they are robbed of their gay attire by the first breath of frost, while the hardy nature of the Rose and the Hollyhock carries them forward fresh and beautiful



CALLISTEMON SALIGNUS AT MENABILLY.

was a labour of love. And thus a shoemaker of Walden, by concentrating his attention on a single species of plant, soon distanced all competitors, and originated those flowers which form one of the most striking and gorgeous feature of modern flower gardens. To rightly appreciate his labours, we must not compare his seedlings—known as *Magnum Bonum*, *Rosea grandiflora*, &c.—with those figured in Gerard's Herbal, in which the flowers, sparsely scattered along the stem, nod and droop at the bidding of every breeze—for they had long been numbered with the things that were—but with those of other cultivators of the same date. The distinguishing characters of the kinds he originated are their more perfect form, greater substance, closer arrangement of petals, and greater proximity of the flowers on the spike. Hence, they would appear an advance in every important point. But we must not suppose this improvement to have been the offspring of a single effort. From month to month, and from year to year, did this indefatigable cultivator toil, and the result is a monument of *perseverance* as well as of

throughout the chilly months of autumn. When others languish and decay, they fearlessly confront the blast, their many-coloured blossoms often enlivening for a long period the desolation caused by a single frosty night.

WILLIAM PAUL, F.L.S.

(To be continued.)

CALLISTEMON SALIGNUS.

GROWING in Mr. Jonathan Rashleigh's noted garden at Menabilly, Cornwall, is the subject of the accompanying illustration. It is about 12 feet in height and as much in diameter, and in July is literally covered with flower. It is known at Menabilly under the name of *Callistemon salignus*, and has pale yellow blossoms. This agrees with the account of *C. salignus* in "Nicholson's Dictionary of Gardening," where the flowers of this species are described as straw-coloured, but I believe that in the present day the authorities at Kew hold that

* This last description applies with remarkable accuracy to some of our finest modern varieties.

* "The Botanic Garden," by B. Maund, F.L.S., No. 977.

C. salignus has crimson flowers, and that it is synonymous with *Metrosideros floribunda* of nurserymen. The Bottle-brush trees, as they are popularly termed, are very attractive when in full bloom, the flowers forming dense cylindrical masses round the shoots 4 inches or so in length and 3 inches through, the closely packed stamens producing an appearance very like a bottle-brush. In the southwest these *Callistemon*s succeed well in the open ground and generally flower profusely, growing well in ordinary garden soil. Large specimens in perfect health are to be met with here and there, but I have never known such a fine example as the one at Menabilly here illustrated. I have seen plants with crimson and scarlet flowers in various gardens growing under the names of *C. linearis*, *C. rigidus*, and *C. lanceolatus*, but whether these titles agree with the present day nomenclature I am unable to say. The *Callistemon*s, with the *Beaufortias*, *Calothamn*i, *Metrosideros*, and *Melaleucas*, all handsome flowering trees, are members of the *Myrtle* family, and come from Australia.

S. W. FITZHERBERT.

INDOOR GARDEN.

THE BETEL NUT PALM.

(ARECA CATECHU.)

ONE of the most important and valuable amongst the many notable trees of this great and useful order is the Areca, or Betel Nut Palm. Widely distributed as it is throughout the East, it is also one of the best known species, some twenty or more of which have been described. Areca Catechu forms an erect slender stem, bearing at its summit a crown of graceful leaves, amongst which the spadices hang in great clusters of egg-shaped fruits, each one formed when ripe of a thick fibrous pericarp, enclosing one seed about the size and shape of an ordinary Nutmeg.

The species is a native of Cochin China and the islands of the Malay Archipelago, where, as also in India, it is largely cultivated, chiefly for the sake of the nuts or seeds. The plant does not succeed at any distance from the sea, nor at an elevation over 3,000 feet. Clumps or avenues of Betel Palms are to be seen in most villages in Burma, Bengal, and South India. Different forms or varieties of the Betel are grown in different parts of India. In Mysore, it is said, two distinct varieties are cultivated, distinguished by the size of the seeds, though both have a similar value and are produced in equal quantity. Though the method of cultivation differs somewhat in the various provinces, it is practically the same. Thus in Mysore the seeds ripen from the middle of January to February. They are sown in trenches half filled with sand, upon which is placed a row of ripe seeds, which are covered with sand and black mould, and are watered about every three days for the space of four

months. When of sufficient size the young plants are transplanted in rows between Plantain trees. In dry weather they require water about every third day, but in the rainy season it is necessary to dig a trench between every third row to carry off the superfluous water. At the end of three years the Plantains are taken out, and a row planted along the middle of each bed to preserve the necessary coolness to the Arecas, which, at the expiration of five years, have usually attained the height of 5 feet and begin to produce fruits. Most of the Betel Nut plantations in Mysore are interspersed with Coconut trees, Limes, Jack Fruit, and other trees to give shade and freshness to the soil.



THE BETEL NUT PALM (ARECA CATECHU) IN ZANZIBAR.

In Ceylon the Betel Nut is cultivated to some extent, and in several varieties, but the quality is of much less value than of those grown in India. The average yield of a Betel Nut Palm is estimated at 300 fruits, and as a fruit contains only one seed, the result is the same number of the so-called nuts. The chief trade in Betel Nuts is said to be centred around Bombay. Ceylon and Madras export their nuts to the Western capital, from which they are re-exported to the principal Asiatic centres and diffused by land all over India. Sumatra and Singapore also export large quantities of nuts to Bombay. Amongst other than Eastern countries that take large quantities from India may be mentioned Zanzibar, Mozambique,

Mauritius, and South America. The introduction and successful growth of the tree into any of these countries will, of course, have the effect of lessening the Indian imports, and that such a result is being effected is shown by the illustration, which represents a group of Areca Catechu trees in Zanzibar, with natives climbing their tall trunks to cut off the ripe fruits.

The chief use of the seed is as an ingredient in the preparation of *pān* for chewing, an universal practice among all classes. The seed or nut is found in all the bazaars, either whole, sliced, or cut into small pieces, the chewing of which is said to stimulate digestion and to prevent dysentery. In the preparation of *pān* Lime, Catechu, Cardamom, Cloves, and other ingredients are used, the lips and teeth being coloured red by its continued use. Besides being used as an article of luxury, it is a kind of ceremonial, which regulates the intercourse of the more polished classes of the East. When any person of consideration visits another, after the first salutations Betel is presented. To omit it on the one part would be considered neglect, and its rejection would be judged an affront to the other. Areca Nuts are also used in medicine on account of their astringent properties, and have long had a reputation as an anthelmintic for dogs. Reduced to charcoal and finely powdered, Areca Nuts are much used as a dentifrice. Finally, the young flower-spades are made into caps, dishes, plates, &c., for holding fruits and sweetmeats. JOHN R. JACKSON.

Lympstone, South Devon.

TREE CARNATIONS.

SEASONABLE NOTES.

IN connexion with this group there are two important matters at the present time of a seasonable nature. The first and most important is that of housing the plants intended for early winter flowering. This work should be taken in hand without delay. It is the more important, naturally, in the case of those plants already well forward in bud, as the earliest examples will now be. Unless the plants are housed some days in advance of the topmost or crown bud, showing its inclination to open, that good bud will in nearly every instance have to be sacrificed. This is more marked in the case of white-flowered varieties than in all other shades put together, for a small blemish on a white petal develops and disfigures the flower. Taking the batches all in all they are as good as it is possible to expect in so wet and sunless a season. Batches of different ages of the same variety treated in all respects alike as to soil, &c., display marked differences when brought together. Those that were well established or nearly so when the great rainfall of June was experienced are now markedly superior to others freshly potted and placed in the open just before that great flood time. This year the plants or varieties that are naturally not robust or vigorous in root action have suffered accordingly. Strong growing varieties, such as Mrs. Lawson, for example, appear, if well rooted, to be able to stand much in this direction. On the other hand, the more weakly white varieties, such as Mlle. Carle and

others not much more robust, display a strong dislike to wet with cold or abnormally low temperatures. Lucky the grower who can for all such sorts command frames, or at least lights to throw off the great bulk of the wet.

To dwell upon this phase of the subject now would perhaps appear rather late in the day. The object, however, now that housing is being done is to take some trouble in securing a dry condition of the soil before watering is begun under glass. This is not recommended for those in bud, for they may practically take care of themselves, but later batches may with advantage be allowed to dry up so as to sweeten the soil for the quickly forming new fibrous roots. Once the soil has been so sweetened the ordinary watering may be proceeded with. With the housing of the plants a good overhauling of the pots to free them of weeds, keeping a keen look out for slugs or caterpillars, are worthy of attention. Fumigation should not long be delayed, not so much to destroy aphides as to put an end to the small army of insects that usually infest these plants, and particularly the early opening flowers. To neglect putting an end to this pest would mean the loss of many flowers, or at least sadly mar their beauty. White-flowered varieties especially suffer quickly.

E. H. JENKINS.

DISEASE - RESISTING POTATOES.

READERS of THE GARDEN will no doubt be deeply interested in the discussion which is now taking place respecting the best disease-resisting varieties. A more disastrous season than the present one can hardly be imagined, and should prove to be a thorough test of those new varieties which are supposed to be proof against it. I have not grown Northern Star, consequently I am not able to give an opinion on that now famous variety, but out of a large number of varieties here on a wet, heavy land, all left in the ground after the middle of August were more or less affected, some, of course, more so than others. Varieties which only a few years ago were supposed to be disease resisting or practically so are now equally as bad as any. No doubt after a few seasons the constitution becomes weakened, hence the necessity for continually introducing new varieties, and in my opinion the chief aim of the raiser should be to endeavour to get those sorts which mature early. Very late sorts should certainly not be encouraged. I have for many years practised and advocated the lifting of the main crop very much earlier than is usually done, and by so doing the crop is generally ensured. As an illustration of this we lifted this year on August 12 a large piece of Windsor Castle, Snowdrop, Syon House, and Bountiful, leaving a few rows of each sort, which were taken up the first week in September. On the first date we saw no trace of disease, and none has developed since, but those left till the later date were so badly infested, each sort being equally bad, that they were scarcely worth the trouble of lifting. Even though the tubers may not be ripe and the skins become rubbed, except for appearance sake, they are none the worse either for cooking or keeping. The great secret in Potato culture is to select varieties of first-rate quality. Well prepare the sets before planting, which should be done as soon as it is safe to do so, the date depending on the position and locality in which one resides. Allow ample room between the plants and lift early. As a first-class all round variety I know of nothing to equal Windsor Castle. Up-to-Date is a great favourite, and probably unequalled for field culture. Snowdrop is still excellent, but must be lifted early. Carltonian is good. Sir John Llewelyn has done remarkably well this season; it is a very fine Potato. Bountiful and Cigarette are both good and of very handsome appearance. Goldfinder is a good crop, and there is little disease. Ideal is a very handsome Potato at its best, but both this season and last refused to grow well and was badly diseased, the crop being scarcely worth lifting. Satisfaction, a good crop, tubers fine, but

diseased. Syon House fully bears out what was claimed for it, being a grand Potato for any purpose. Among coloured varieties Edward VII. turned out well, and is fairly free from disease. Mr. Breese is still one of the most handsome; a good cropper but badly blighted. Reading Russet still holds its own as a good red round, as also does Vicar of Leham; these should be lifted early. Lord Rosebery is a very telling variety and fine for exhibition when seen at its best; it must be taken up early. Early varieties turned out remarkably well, and there were no signs of disease. Sharpe's Victor is much liked here, both for frame culture and in the open. Improved Ashleaf will maintain its position, being of high-class quality. Early Puritan is also good. Duke of York is one of the most handsome and of good table quality. Ringleader matures very quickly, and is well adapted for frame and pot culture.—E. BECKETT, Aldenham House Gardens, Elstree.

THE past season will surely convince the most conservative that to grow such varieties of Potatoes as Snowdrop, Beauty of Hebron, Puritan, and such like is only courting failure, when so many heavy cropping and disease-resisting varieties are on the market at reasonable prices. Royal Kidney and Empire Kidney are two very good varieties, much heavier croppers than Snowdrop, and do better on poorer soils, as I always found Snowdrop wanted higher cultivation than most varieties. Evergood has proved to be a great cropper of excellent quality here, and free from disease. I consider it one of the best varieties on the market within the reach of all. Northern Star will be another grand variety, but at its price it is not everybody's Potato yet. It has cropped well here, from 11b. of seed (only out) we lifted 92½lb. of handsome tubers. Discovery was a very poor crop grown side by side with Northern Star; with the same treatment from 2lb. of seed we only lifted 54lb. of very unsightly tubers. Empress Queen and British Queen are also good, and have always cropped well here.—A. FINDLAY, The Gardens, Maresfield Park, Uckfield.

I grow early Potatoes principally in the garden, and our late supply in the field; but I make a point of growing some late ones in the garden to change the seed in the field every year, for I find the crop is thereby much improved. Some years ago I used to grow over twenty varieties, but have given this up, and only grow about a dozen now. I can find nothing to excel Sharpe's Victor for the first crop, followed by Veitch's Improved Ashleaf. Duke of York with us is a fine cropper and good flavour, but more prone to the disease than the two former. Bovee is the best of the American sorts, and on warm light soil is grand. Cottagers grow it about here largely. Windsor Castle is still valuable; this year, on a dry piece of land, from fresh seed, the crop was excellent, and almost free from disease. Syon House has been grand, but last year and this has suffered badly from disease. Universal surpasses Schoolmaster in the field, but it is not disease proof. Up-to-Date gives a grand crop, and is a good disease resister, but is of poor quality when grown on wet soil. This year and last our best Potato has been Sir J. Llewelyn. I first obtained my stock from Hackwood Park two years ago. In the garden it gives an enormous crop. I have not seen a diseased tuber for some time, although I grow a lot of it, and should recommend all to grow it. This year I obtained seed of Evergood, and am much pleased with it, and have not had one diseased. I find burnt earth, wood ashes, &c., most helpful in garden culture. It keeps slugs, &c., from eating the tubers. The continued rain is much against lifting the crop.—JOHN CROOK, Forde Abbey, Chard.

PRACTICALLY I know very little about the Potatoes that have recently been introduced to cultivation or written about, therefore I do not feel justified in giving my opinion upon them. I only hope that they will prove to be as trustworthy as they are represented to be. I can, however, answer as to two of my own seedlings, Sutton's Ringleader (first early) and Early Regent (second early), with me they have proved the best disease resisters. They "come off" the ground before the disease

can attack them; they are of excellent quality, colour, and crop, and they keep to the end of the season.—ROBERT FENN.

I MAY say that only one variety this year has given me a crop, namely, Charles Fidler. Snowdrop and Early Rose were dead failures from disease, and even a late crop of Duke of York succumbed. The haulm of Charles Fidler looked bad towards the end, but the crop has been capital. Ours is a light gravel soil, and we have never had disease before. Up-to-Date has done well near here.—A. M. M., Berks.

THAT the very wet summer we have had has done a great deal to damage the Potato crop in this county can be seen from the look of the crop where not dug, and also from the complaints one hears all round. In the valleys and low-lying portions of course the crop is more affected, but we have been most fortunate. The soil in which the Potatoes are growing is light, and this spring in place of manure the gardener had a good deal of lime dug in, and the result has been most successful—a perfectly sound and abundant crop, a few specimens of which I send. The variety is Up-to-Date. [Very fine.—Ed.] Some much larger tubers were dug early in August.—A. H. TYRRELL, Peak Cottage, Sidmouth, Devon.

By far the most satisfactory Potato in this neighbourhood is Up-to-Date, in quality, cropping, and appearance, and last, but not least, freedom from disease. I have not attempted to grow the high-priced Potatoes up to the present, but contemplate giving them a trial. I am discarding several old favourites, such as Early Ashleaf, Early Puritan, Windsor Castle, and Satisfaction. This is the second season the last two have proved a failure.—WILLIAM FYFE, Lockinge, Berks.

THE condition of the Potato crops of this country is of the greatest national importance, and as this extremely unkind season has adversely affected the results in practically the same proportion as most other outdoor crops, it is well that we should compare notes to see if we are able to profit by such facts as come within our own observation. It is clear that varieties of Potatoes grown on or near the same ground year by year do wear out, hence the necessity for raisers to continue to raise new varieties, as far as possible from the best disease-resisting parents. It is varieties with stamina and healthy constitutions that are wanted; this and constant changing of seed will help to check disease to some extent, while early and persistent spraying of the growing plants will be found still further beneficial. Some twenty-five years ago a philanthropic gentleman took up the matter of gathering the pods of Potato seed, and sent a packet of this indiscriminately-saved seed to every member of the House of Lords, and as I was then in the service of the Duke of Marlborough at Blenheim, one of these packets was placed in my hands for cultivation, with the result that we had thousands of seedlings, short and tall haulm, early and late, white and coloured progeny, good, bad, and indifferent quality—in fact, the most heterogeneous sample imaginable, but very little disease in the tubers. Selections of the most promising were made, but other circumstances prevented the experiment in this case being completed; but doubtless with more skilful hybridisation of the flowers much better results may be expected. We have plenty of Potatoes of really good quality already, and we should aim at preserving these. I have seen crops lifted this season in cottage gardens and other Potato-sick ground that barely returned the seed weight of sound produce to the cultivator; of course, these were grown from tubers that had been grown on the same ground for several years, while in marked contrast to this, and growing by the side of the above, the variety Evergood, from Scotch-grown tubers, gave more than twelve times as much—thoroughly good Potatoes of best eating quality. Evergood has proved much the best main crop variety we possess, and although it has not been "boomed" to the same extent as Northern Star and others, there can be no doubt that it is a very valuable variety, and reasonably within reach of all. Up-to-Date,

British Queen, Magnum Bonum, and all the older sorts have deteriorated, and are so badly diseased as to be practically useless, especially on our heavy clay soil. For early work, where required in quantity, we know of nothing more reliable than Ringleader and Myatt's Ashleaf, the latter yellow flesh of best flavour. We prefer to obtain our seed tubers grown in Scotland, purchased fresh every season.—W. CRUMP, *Madresfield Court*.

NOTES ON HARDY PLANTS

THE EDELWEISS.

(*LEONTOPODIUM ALPINUM*.)

SEVERAL forms of this well-known plant are in cultivation under various names. Owing to its wide range, which extends over the mountains of Europe and ultra-topical Asia, one would naturally expect slight differences, which almost wholly disappear when

increased by division of the root, but better plants are produced from seed. Other species belonging to this genus in cultivation are *L. japonicum*, rather a stronger growing plant, still scarce and more difficult to keep than *L. alpinum*, and *L. sibiricum*, a plant very closely allied to the Edelweiss.

Kew.

W. IRVING.

NOTES ON THE AQUILEGIAS.

AQUILEGIA GLANDULOSA.—How sweet and pretty are your pictures of this lovely gem (pages 26, 27), and a happy reminder of my days long ago. Why in the early sixties I worked in Grigor's nurseries, Forres, and tended this Columbine and gathered its seed. The Forres nurseries then as now were headquarters for it; and we also grew *Aquilegia Skinneri* there, too, and made a speciality of it as well. With us in America *A. glandulosa* is only fairly well behaved; it is a trifle miffy and not very hardy, but if grown in a cold frame over winter it blooms beautifully in spring.

that is because they always keep the leaves on when they dig them; if before digging them they cut off all the leaves, then lift the roots and transplant them they'll grow without any difficulty."

THE LONGEST-SPURRED COLUMBINE (*AQUILEGIA LONGISSIMA*).—About twenty-two years ago, when at the Harvard Botanic Gardens, I grew a lot of these from seeds given me by my veteran friend Dr. Edward Palmer, who collected them in the mountains of Northern Mexico. The plants resembled *A. chrysanthra* somewhat, were yellow-flowered, very free-blooming, and of vigorous form. The flower-spurs were exceedingly long, 5 inches and over, and hung down about the stems of the plants like Dodder. I gave plants to several people at home and in Europe, but everybody lost them the following year. I then left Massachusetts for New York State, but unfortunately did not take any of the plants with me. They did not ripen any seeds with me or anyone else, and I believe the species was not quite hardy. My great success was in a cold frame. Dr. Palmer (who is still connected with the Agricultural Department at Washington) has *carte blanche* orders to refind this Columbine for me.

W. FALCONER.

Pittsburgh, Pa.

RUDBECKIA PINNATA

How seldom do we see this cone flower, yet it is a distinct plant and worthy of extended cultivation. It grows from 4 feet to 5 feet high, and each flower is formed of from seven to ten petals, about half an inch wide and 2 inches long, and quite drooping. In colour the flowers are the palest yellow.

E. MOLYNEUX.

ERYNGIUM PANDANIFOLIUM.

THIS is a remarkable umbellifer. From a casual glance in the spring and early summer, before the flower spike appears, one would be inclined to class it amongst succulents rather than in the natural order Umbelliferae. It is well named *pandanifolium*, for its leaves bear a striking resemblance to the Screw-Pine. In a well-grown clump the narrow, concave leaves, which are very glaucous and spiny at the margins, will measure fully 6 feet in length. Towards the end of the summer the giant flower spikes will reach a height of from 10 feet to 15 feet, presenting a noble and striking appearance. The individual flowers are purplish in colour, and are arranged in small, globose heads, which surmount large dichotomous panicles. Coming from Monte Video, it is probably none too hardy in the colder counties, but it is well worth the labour of protection in severe weather. As the spikes are so tall and brittle a thoroughly sheltered site is essential. Here in Cornwall it succeeds admirably in a moist, sheltered dell.

A. C. BARTLETT.

THE LILIES.

To thoroughly understand a Lily one must study, as far as possible, the way it grows in a wild state, and to thoroughly appreciate its beauty one must see it in similar surroundings to those which exist in its native home. Fortunately, these two conditions are quite possible. A careful study of the Lily in all its phases of growth shows that it seeks low-growing trees, scrub, and herbs. These latter plants play an important part in the preservation of the Lily, from the tiny seedling to the adult plant.

The bulbs, as many know to their cost, are liable to injury and decay from excessive moisture in the one part, and drying winds and heat in the other. Trees, shrubs, and herbs



EDELWEISS FROM SEED ON A ROCK GARDEN.

grown under identical conditions. Geographical names have been given to several varieties, indicating the district where they are found. *L. a. himalayanicum* is the form from the Himalayas, *L. a. altaicum* comes from the Altai Mountains, and *L. a. transylvanicum* is the name given to the variety from Transylvania.

The Edelweiss, with its hoary appearance and small yellow flowers, surrounded by star-like heads of leaves clothed with a dense white cottony substance, is a plant much sought after, probably more enquiries being made for it than any other plant in the rock garden. Notwithstanding its comparative scarcity in gardens its culture is not difficult in light soil, provided that this contains lime, but, if naturally deficient, lime should be added in the form of old mortar rubbish, which answers the purpose very well.

Damp is a great drawback to its well-being in winter, when a piece of glass placed over it is an advantage. It may be

A. CERULEA.—But we grow pretty nice ones of this species, and to have the stock genuine and pure raise it afresh every year from seed collected from the wild plants in the Rocky Mountains. We get them from Mr. D. M. Andrews, Boulder, Colorado. We treat it as a biennial. It is very free-blooming and perfectly hardy. A neighbour of ours and a great garden lover recently returned from a vacation trip in the mountains of Colorado, and he is loudly enthusiastic over the glory and vast profusion of the wild flowers there, more particularly of this Columbine. "Why, man!" he exclaimed, "your Columbines are fine, and I have measured them three inches across, but those out in Colorado beat them all to pieces. There were acres and hundreds of acres of them, and some of them had blooms as big as a tea-cup"—he really said saucer, but he was awfully enthusiastic—"and there were some pure white ones among them too." And he continued, "I'll let you see them some day, for I had a man out there mark some of the biggest flowered ones, and when they are out of bloom he is going to dig up the roots and send them here to Pittsburgh to me. They tell me out there that the wild plants are hard to transplant, but I told them



A LILY-LINED PERGOLA. (From a photograph taken in a Venice garden.)

by screening the soil about their stems, withdrawing excessive moisture by means of their fibrous roots from the scales of the bulbs, correct all these cultural defects, and if we wish to grow all Lilies well, we must adopt a similar scheme, wherein we associate Lilies with protective plants whose presence will not only enable us to grow them better, but will afford excellent opportunities for good effects which are possible in no other way. Even as the wilding Fern appears at its best in the country-side hedgerow, so the Lily charms us more artistically disposed amid leafy surroundings. We have, however, in the cup-flowered Lilies a type that would strike a jarring note in such places—their rigid outline associates better with the inhabitants of the plant border, where also their requirements would be more fully met.

A few Lilies, notably, Humboldti, washingtonianum, and in some cases giganteum, absolutely refuse to grow except amid natural surroundings resembling in all essential characters their native habitats, and it is worthy of note that all those Lilies which grow in woodland, on mountain sides, in ravines, and in peaty marshes prove the more difficult to satisfy under present cultivation. The reason for this cannot be sought in their lack of hardihood, for that is assured. Failure in cultivating these invariably follows disregard of the peculiar formation of their bulbs, whether or not their roots are shallow or deeply descending—produced from the base of the bulb only or the base of the stem also—and whether or not their leaves indicate association with scrub, in being mere bracts at the base of the stem and abnormally developed at the top, where they can get more air, as in Browni, auratum, Krameri, and most of the open-flowered Lilies, such as speciosum and others of its type; or whether the reverse conditions prevail, wherein the breadth of leaf below indicates a more open exposure, as in Martagon, longiflorum, and tigrinum.

These characteristics, though minute in themselves, and liable, therefore, to escape the notice of the casual student, are important as an unerring guide to the proper cultivation of each species, and we feel assured that a little attention to these points will not only reduce the number of failures in growing Lilies, but will also enable those who are moderately successful now to grow them better still.

As some guide to what we consider the more important characters, we have in the following notes described the methods of rooting, the disposition of the leaves, and in what way they should influence the culture of the plant described. These characters are of far more importance to the cultivator than the shape or colour of the flowers and non-essential details. Thus the plant that grows upon steep hill-sides liable to detrition will, in the course of years, elongate its bulbs sideways and provide itself with contractile roots, which will pull the growing point deeper into the soil every season, as in *L. Humboldti* and *washingtonianum*.

Again, the plant that grows amid scrub will find that its lower leaves cannot perform their functions properly, owing to the competition for light, hence it dispenses with them and develops those that are likely to be of more service. These assumed characters are the work of generations.

It has been an unfortunate omission in recent literature of the Lilies and of other bulbous plants that little or no reference has been made to that portion of the plant below the soil. There is plenty to study here, and

every peculiarity noticed in such parts has been rendered necessary by its surroundings as a wilding.

One cultural detail not described fully, because it is necessary for every species, is that every bulb should be enveloped in sand at planting. There is nothing quite so efficacious in warding off the attacks of slugs and ensuring ample drainage than this simple practice. Sites that harbour slugs should be dressed with a strong solution of Quassia chips prepared in the usual way by scalding. This preparation renders the soil and vegetation distasteful to any of their tribe for a long time.

We have purposely omitted in the following monograph of garden Lilies any reference to plants not known to cultivation. There are many species in China, and doubtless America, awaiting introduction, but until these are available in quantity in order that they may be fully studied as garden plants and their worth as such approximated, we can say but little about them. Similarly, there are other species introduced many years ago but now lost to cultivation. These must also be left until they are again restored to our gardens.

L. albanum (Griesbach) (the Albanian Turn-cap Lily).—A pretty Lily rarely found in cultivation, and considered by many to be a choice form of the variable *pyrenaicum*. Bulbs conical, yellowish, generally compound, and as large as a Lemon; roots very stout. Stems 2 feet to 3 feet high, clothed thickly below and sparsely above with narrowly lance-shaped leaves 6 inches long, rough to the touch on both surfaces, scarcely at all rooted at their bases. Flowers, two to six, in a loose umbel, reflexing, fully coloured a bright tint of yellow, sparsely dotted grey in the lower half, and measuring $2\frac{1}{2}$ inches across when fully reflexed. Sweetly fragrant. A rather curious plant in its botanical affinities. It has the bulb of *chalcidonicum*, the leaves of *carniolicum*, the flowers of *pyrenaicum*, and the fragrance of *washingtonianum*. It inhabits woodland in the mountains of Albania. Flowers in June—July. Like most of the Martagon race, this Lily prefers a fairly rich, well-tilled soil, an open exposure, despite its woodland habitat, and it may be well grown in the plant border. The bulbs should be planted in September in order that the basal roots—the only support—may make headway before winter, and they appear to thrive better if some low-growing herb is planted about their V roots. The bulbs make little growth in the first year after removal, but recover and flower grandly in the second year. It is long-lived under cultivation when once established. Quite unsuitable for pot culture.

L. Alexandre (Hort. Wallace).—See japonicum var.

L. angustifolium (Mill.).—See pomponium.

L. aurantiacum (Siebold).—See bulbiferum.

L. auratum (Lindley) (*L. speciosum imperiale*) (Siebold) (the golden-banded Lily).—A magnificent and variable species introduced to Europe from Japan in 1862. There are two types not generally separated (in addition to the recognised specific varieties) but which are so distinct in habit and duration under cultivation that we think it advisable to describe both types. The older type, which we describe first, is the best garden *L. auratum*; the newer one is the best type for pot culture. Bulbs from 6 inches to 15 inches in circumference, in shape resembling an Orange, but flatter, and the growing point is raised. Colour a dull white, dotted more or less freely with pink, the older scales showing a tint of bronze. Scales variable, but always broad below.

Stems 3 feet to 8 feet high, producing bulbs at the ground level only and masses of roots above the bulb. Leaves narrowly lance-shaped, the stalks alone closely pressed to the stem, rich green, under 10 inches long, those within 1 foot of the stem's base reduced to mere fugitive bracts, and those just below the inflorescence are longest and broadest. Flowers four to ten, in a loose spike borne on long, stout footstalks, poised horizontally, or but slightly drooping, very widely funnel-shaped when they first open, eventually becoming nearly flat, the tips of the petals only recurving. Petals 5 inches to 8 inches long, white, broadly lance-shaped, banded down the middle with pale yellow, sparsely dotted crimson elsewhere, the spots raised on slight processes, longest and most prominent near the base. External colouring a warm bronze red under full exposure to sun. Anthers very large, red.

A more recent type is fewer flowered, the petals are undulating, much recurved, often slightly sickle-shaped, and they expand fully. Its bulbs are pointed, the scales fewer, broader, and loosely compacted together. It is less certain of growth in the open than the older type, as its bulbs hold moisture at the bases of the loosely arranged scales, but it is the better plant for pot culture as it makes the greater quantity of stem roots. Natives of Japanese mountain slopes, growing in light, rich soil, and vegetable debris among low growing, shallow-rooting shrubs and herbs, and amid rocks; very fragrant. Flowers in August. Very common in cultivation.

G. B. MALLETT.

(To be continued.)

THE FRUIT GARDEN.

THE CHERRY.

THE county of Kent has long been celebrated for the quality of Cherries which it produces, and in all probability they were first planted in this part of England, of which Caesar speaks more favourably than of any other district which he visited. Some authors assure us that the Cherry, which was brought into this country by the Romans, was lost in the Saxon period, and only restored by Richard Harris, fruiterer to Henry VIII., who brought it from Flanders, and planted it at Sittingbourne in Kent. This appears to be an error, as Gerard says "the Flanders Cherry tree differeth not from our English Cherry tree in stature or in form." There is an account of a Cherry orchard of 32 acres in Kent, which in the year 1540 produced fruit that sold in those early days for £1,000, which seems an enormous sum, as at that period good land is stated to have let at one shilling per acre!

Few of our hardy fruit trees are more accommodating than the Cherry. The cottager in his little garden may have it in the form of a bush, pyramid, standard, or as a single cordon against a fence or wall, and the amateur may have it in these forms also, as well as on espaliers, as recommended for Pears. He may grow it successfully under glass, either planted out or in pots, and thus extend the season of this delicious fruit from early May to the middle of September by growing early, mid-season, and late varieties. As an orchard crop, where the soil and situation are favourable, few hardy fruits are capable of giving, on an average, a better cash return. As regards soil and situation, the sweet or dessert Cherry succeeds in the Southern and South Midland counties the best. It thrives well in rather an elevated position, where it has the advantage of light, good natural drainage, freedom from damp, immunity from frost when in flower, and the advantage of driving showers of rain in the early summer; these not

only refresh the trees, but keep the foliage healthy and clean. The above remarks refer more particularly to plantations or orchards. The soil in which the Cherry succeeds best is strong, somewhat marly loam, of a fair depth, resting on a substratum of gravel or chalk; where no chalk or lime is present in the soil, some must be added before success can be attained in the culture of the Cherry, or, we may say, of any orchard fruit.

The stock used for grafting all orchard Cherry trees upon should be the common or wild black Cherry. The Continental seedlings do not seem to be so hardy, but the British stock is suitable for all. We do not find any great advantage generally in using the Mahaleb stock for Cherries, although it suits the Duke and Morello Cherries admirably. On the other hand, for pot culture or restricted pyramidal trees, we find that trees on the Cherry stock regularly repotted or transplanted are equally as good as those on the Mahaleb.

Cordons and small trees when young must be root-pruned in any case, for when free growth ensues, and shoots are pruned hard, this is apt to cause gumming, which may injure or destroy the trees. And we find that where Cherries for orchards are budded low, the stems are more easily injured and liable to gum than when budded high on the wild Cherry stock named. On the other hand, where Cherries sometimes do not succeed on the Cherry stock, they may be grown on the Mahaleb. Cherries are very liable to be called after local places, and in this way names have been needlessly multiplied. Fruit well cultivated in orchards differs considerably from the same varieties in starved, poorly treated land.

CHERRIES FOR ORCHARDS.

For this purpose we have to choose comparatively few sorts, and such as will be profitable during a long series of years, for the life of a standard Cherry tree may be a hundred years, except in the case of the Flemish and Kentish Reds, May Dukes, and like sorts. In planting a profitable Cherry orchard place trees of the larger growing varieties at 36 feet apart, and plant between each either a Flemish, Morello, or May Duke variety; or, if the soil is suitable, a Plum or one of the smaller growing sorts of Apples.

PRUNING.—If the orchard is in grass land, and it is intended to run sheep or cattle among them, they should be cradled to protect them from injury, and then be allowed to grow one year without cutting back. We hold this to be very important. While admitting it to be true that with very careful attention they may be cut back when planted, we believe as a general rule it is far better to allow the trees one year's free growth. They then become established before any cutting back is done. Afterwards a yearly pruning to shape the trees is essential; but when well-disposed and regulated head and branches are formed, they may be left alone, merely removing any useless shoots and such as cross each other. The Flemish and Morello class require very little pruning. The Bigarreau and black Cherries will need attention for three years after planting; but the Rivers' Early, Elton, and any sorts that have long, pendent shoots, almost a weeping habit of growth, will require attention for five or six seasons in order that the boughs may not be so low as to be in reach of sheep or cattle. And to aid them they should be cut to a bud pointing inwards instead of to the usual outside bud, to form at first the desired basin-shaped tree.

VARIOUS POSITIONS.—In Kent it is usual to plant orchard Cherry trees in Hop fields, removing a hill of Hops and planting a Cherry. The Hop requires liberal culture, and we cannot at all recommend this system, because Cherry trees grow too freely, and they are not only liable to



A BRANCH OF WHITE HEART CHERRIES

injury from severe frost acting upon the unripe wood, but they make such slender growth that, when the Hop poles are removed, and the protection afforded by the growing Hop crop is suddenly withdrawn, they are apt to be damaged by the autumn gales. The long boughs are so bent by the wind that they are strained at the base, and then gum and decay. We prefer Cherry orchards to be formed on arable land which is not heavily manured, or in meadow land where the stems have 3 feet of ground around them clear of grass. In these positions a sturdy, hard growth is made, which can be well ripened before the winter, and when pruned produces such shoots as will form a sound tree. Again, when the trees are upon grass land, sheep should be kept in the orchards until the grass is quite short; then, if the sheep are fed on oil-cake or other rich food, the trees will benefit. Nothing is more injurious to orchard trees than to allow long rank grass to grow close to them, as it robs them of moisture and does much harm to the surface roots. Even old neglected Cherry orchards, when the grass is cleared from around the stems, will respond astonishingly, and a grand return will be had from trees that appeared to be worn out.

GEORGE BUNYARD.

(To be continued.)

LATE PEACH SEA EAGLE AND NECTARINE PEACH.

I HAVE bracketed these two late Peaches together, as probably they are two of the most valuable late varieties we have when quality is considered. Sea Eagle was raised at Sawbridgeworth many years ago, and if Messrs. Rivers had only given us this one variety it would be sufficient to make their name respected by fruit growers. It is a beautiful fruit and one of the best for outdoor cultivation. My reason for placing Sea Eagle first is that it is a much better grower with me than the Nectarine Peach. Sea Eagle thrives where others fail, but with regard to quality these two sorts are practically equal. As regards growth it may be a question of soil or position. Few late Peaches colour so well as the two named; indeed, as regards colour they are often superior to fruits grown under glass. Few varieties are more worthy of a glass coping in gardens where shelter is needed. I noticed at the late fruit show at Chiswick some finely coloured fruits of this variety, and in

the southern part of the kingdom it is surprising how well these colour, especially Sea Eagle. Those who have grown the older Early Silver Peach will remember what a delicate colour this fruit had; indeed, few were more beautiful, and the last named was Sea Eagle's parent. It has a better constitution than the older variety, as Early Silver is tender and needs more warmth. As regards size and colour Sea Eagle has few equals if the season is taken into account. I admit there are larger fruits as late, but not equal in quality. With us at Syon this variety is grown on three different aspects, and in each it is a success, thus proving its value for late September and early October. The Nectarine Peach is quite equal in size to the first-named, having, as its name implies, a smooth Nectarine-like skin, rich melting flesh, and remarkably sweet for a late variety. We can only grow this fruit well on a warm wall, and even then in cold spring it suffers badly from east winds, and should get as much shelter as possible. This was also one of the Sawbridgeworth seedlings and raised from a Nectarine. If given cool house culture it is a splendid fruit.

G. W. S.

MELON GOLDEN ORANGE.

YEAR by year it becomes increasingly difficult for gardeners to determine which are the best varieties of Melons to grow, especially if they obtain, as most gardeners like to do, the best new sorts that are annually sent out. Some, however, prefer to remain loyal to the old varieties, and there is much wisdom in doing so. One gets to understand the constitution of certain varieties, when to sow them to obtain the best results, and many other details, trifling in themselves, yet of much importance to the grower who wishes to obtain fruit of the finest quality. There are probably few fruits grown under glass that the average gardener considers less difficult to grow than the Melon, yet those who cultivate Melons so as to finish them perfectly, both as regards colour of skin and quality of flesh, are comparatively few. The Melon is a tender and capricious plant, and for its fruits to attain perfection very careful cultivation and a knowledge of those minor points that make all the difference between success and failure are necessary. Fluctuations in temperature, careless watering, and ventilation and other items may seem to have no effect upon the crop so far as outward appearances go; but when the fruit is cut the bad flavour tells a tale.

But I wish to draw attention to a Melon that is in danger of being lost sight of, namely, Golden Orange. It was, I believe, raised by the late Mr. Andrew Pettigrew, of Cardiff Castle Gardens, who also originated many other good Melons. It is a large oval white-fleshed fruit of very good flavour. It crops splendidly, and in this respect has an advantage over many new varieties which are the result of so much inter-breeding that their constitutions are weakened and their cropping qualities seriously impaired. Melon Golden Orange is a strong grower, as well as a good fruiting variety. I recently saw plants each carrying from five to six fruits, and all of good average size. Many new Melons are shown every year before the fruit committee of the Royal Horticultural Society, but a small number of them receive any award, simply because they are deficient in flavour. Flavour in Melons is everything. While a good Melon is a delicious fruit, an indifferent one is entirely the reverse. In few fruits does good or bad flavour make such a great difference. A. P. H.

GARDENING OF THE WEEK.

FLOWER GARDEN.

PLANTING SHRUBBERIES.

A MOST important operation is this, and all transplanting, to be successful, must be carefully performed. If immediate effect be aimed at then large specimens must be planted, but these, if not already in existence, will be both expensive and difficult to procure, and it is always hazardous to transplant large shrubs from a distance. It would be far better to choose smaller plants, and these, if planted in properly prepared soil, will in a few years outgrow those that may have been removed of a larger size.

Whatever style of planting may be adopted it is necessary that a correct plan of the ground be first made, and upon it should be marked the number and position of such groups or single specimens as are to form the main features of the shrubbery when it has attained its fullest degree of perfection. These positions should be accurately transferred to the ground and marked by a stake with the name or corresponding number to that on the plan written on each. When planting these points should be first filled in and the spaces between planted with such things as are from time to time to be removed. Unless this or some suitable guide be adopted the whole will go on at random and the object of the planter be completely defeated.

RHODODENDRONS.

These may be moved and planted any time when at rest, but now is the most desirable time. Plants with clear stems of 1 foot or 2 feet from the ground always flower better than low bushes, and in the northern and colder parts of the kingdom it is a mistake to plant in shaded situations. They set their buds and bloom much better when exposed to the sun. In hotter districts a dell not overhung with trees but having a north aspect is a suitable place for them. The first summer after planting the surface of the soil should be mulched with half-decayed litter, such as leaves, in order to prevent evaporation and to keep the roots cool and moist. During dry weather a heavy watering occasionally will be of great benefit. When plants show signs of weakness they should have a top-dressing of some rich compost spread over the beds, such as cow manure and loam in equal proportions, and as they bear lifting with impunity they can be lifted at intervals of years and some fresh, rich compost added to the soil and then be replanted. T. B. FIELD.

Ashwellthorpe Gardens, Norwich.

KITCHEN GARDEN.

CARROTS.

THE main crop of roots, if not already lifted, should be attended to without delay. Trim off the tops fairly close to the top of the root, and lightly

rub off the soil adhering to them, then store in the root shed. Young roots, the produce of seed sown in early August, should be protected where growing by covering lightly with Braeken or similar material. These are of inestimable value for use in the kitchen from this time onwards.

THE HERB BORDER.

Certain herbs are in request throughout the year, and no pains should be spared to keep the plants in a clean and healthy condition. Accumulation of weeds and other rubbish will cause decay of the stems of the plants, hence the necessity for cleansing at this season. Mint and Tarragon may now be introduced for forcing. Small pieces taken from the old roots with a few roots attached will quickly push forth new growth if inserted in pots or boxes of light soil and placed in a warm house or frame. This method is recommended in preference to lifting clumps. By lifting whole clumps from the permanent bed only a few green shoots appear here and there, whilst strong root cuttings invariably produce a vigorous shoot each.

RADISHES.

Where there is a demand for these during winter seed should now be sown on a warm border where some kind of rough protection can be afforded during spells of severe weather.

GARDEN FRAMES.

All available frames and hand-lights should be brought into use for protecting tender vegetables and salad plants. No matter if they are somewhat out of repair, they will answer the purpose for placing over plants that would otherwise be seriously damaged by the action of the weather upon them, such as Parsley, Lettuce, Endive, Spinach, Cauliflower, Chervil, and Radishes.

WINTER CUCUMBERS.

To maintain a supply of these throughout the dull, short days of winter a light house or pit, well heated, is absolutely essential. One of the chief factors to success is to have strong, short-jointed plants to start with, and, provided due attention to other details be exercised afterwards, a regular supply may be maintained. It is, however, a difficult matter to achieve this in old houses having small panes of glass and much wood-work as the light is obstructed. Plenty of light, combined with both top and bottom heat, kept as equable as possible, is very essential to the production of Cucumbers in winter.

Stoneleigh Abbey Gardens. H. T. MARTIN.

FRUIT GARDEN.

CHERRIES.

WHEN these are wanted very early the first set of trees may now be pruned and cleansed ready for tying in when opportunity serves. As these and Plums are often injured by a sudden outbreak of aphid when the trees are in flower, too much attention cannot be devoted to the washing and dressing of the stems and spurs, care being taken that the insecticide used is not strong enough to injure the buds. If, as is generally the case, these exorbitant trees have the benefit of a movable roof, the lights should be thoroughly washed, or, what is almost as cheap, painted inside at least before they are put on for the winter. Vigorous young trees which have been partially lifted or root-pruned will not require mulching or stimulating until after the fruit is set, but the borders occupied by the roots of old ones may be covered with a good layer of rotten manure as soon as they are tied, and to prevent the buds from dropping an occasional soaking with diluted liquid will be highly beneficial to these, as it is to all other kinds of stone fruit trees when grown under glass. When all is finished the house must be kept well ventilated and as cool as possible until the time arrives for forcing.

STRAWBERRIES IN POTS.

The heavy rainfall of the past week or two, combined with mild weather, has kept the plants growing rather more freely than is good for them, as it is now getting late for them to ripen up their crowns properly. Much, however, may be done to facilitate this process by moving the pots

occasionally to let in light and air and to prevent the roots from penetrating the bed of ashes upon which they are placed. If forward batches of early kinds are wanted for early forcing a more decided check may be given to vegetation by placing them on their sides, or setting the pots in cold pits where the lights can be pushed down and tilted in wet weather. As the general stock will continue growing for a considerable time yet, they may with advantage remain out of doors until severe weather approaches, when they must be placed in their winter quarters until wanted for forcing. When thoroughly at rest pot plants should not be allowed to become dry at the roots, neither should they be coddled by being kept in a close pit when the weather is mild. We prefer to leave all the plants out of doors until the middle of November, when they are removed to cold pits, and plunged up to or slightly over the rims in Oak leaves or tan to keep

THE ROOTS MOIST

and to protect the pots from frost. The lights are thrown off in fine weather and well tilted to shelter them from heavy rains. No attempt is made to keep out ordinary frost, as decided rest is highly important, but a thin layer of dry Fern is spread over the crowns when it is unusually severe. When Strawberry plants are wintered in houses they should be placed close together on a cool, damp floor in preference to elevating them on shelves. Keep all runners removed as soon as visible, but do not remove Nature's protection—the yellow leaves that are around the base of the plant; these are a healthy sign, and denote ripeness of the crowns.

Madresfield Court Gardens.

W. CRUMP.

CHRYSANTHEMUMS.

PREPARING FOR EXHIBITING.

MANY anxious moments will now be in store for the enthusiastic cultivator who intends in a few days to enter into friendly competition. Whether the prizes are large or small the ambition to secure the highest award is the first consideration, and to attain to this one's most strenuous efforts have to be put forth. I have known many cases when acting in the capacity as a judge, after the most careful investigation, only two or three points have divided the various awards, and this in very big classes, too. Though it is absolutely necessary to pay strict attention for practically twelve months, it is equally important to do so each day as the time approaches. The loss of one good flower may mean the loss of a first prize. The flowers possibly might have been preserved had a little more care been exercised.

Owing to the wood being in a somewhat unripened condition the flowers are opening much faster than usual this year, and it will require every effort to retard many varieties for those shows which are fixed at somewhat a late date. For instance, one could not fail to be struck with the fine group arranged by Messrs. J. Veitch and Sons at the meeting of the Royal Horticultural Society at the Drill Hall on the 13th inst., which included many varieties one would not have expected to see before next month; but the flowers were of excellent quality, large, and finely coloured. In nearly all cases which have come under my notice the blooms, though early, are promising well.

Large, massive blooms, when nearly out, may be kept several days in quite a fresh condition in a dry room where light and air can be given to them. These will need very carefully watering, and are best taken out in early morning, when they require it. Thoroughly soak them, and let them drain before taking back. Examine the blooms daily, and remove carefully any petals which have the slightest tendency to damp, and in the case of incurves much may be done by preparing the flowers as they unfold. Any deformed petals should be taken out with a suitable pair of forceps; hard centres should also be removed, and many of the larger varieties finish much better when the blooms can be hung in an almost perpendicular position. Except just warming the pipes to counteract damp and frost, no fire-heat whatever should be applied to this section, or the flowers will lack that high finish which is so essential in the

incurred. Consequently, these should always, if possible, be arranged in a separate structure to the Japanese, reflexed, and Anemone-centred varieties, which enjoy rather than otherwise a higher temperature.

In selecting the flowers for exhibition the first and most important consideration to observe is freshness. Stale flowers, it matters not how large, find no favour with good judges, and rightly so. Though, of course, one should always aim at showing flowers just when they are in perfection, it is much safer to err on the side of staging them when not quite out than when past their best. Evenness throughout, whether shown in the old-fashioned way on boards or now in the much more pleasing and popular style in vases, is also of the utmost importance, and blending the colours should also be taken into consideration.

Everything in the way of tubes, cases, &c., should be got in readiness several days before required, and endeavour to conform to the rules by having everything in readiness by the appointed time for the judges. Here a word or two may be in season to the secretaries and those responsible for the management of exhibitions. Have everything ready by the time mentioned, as by so doing the time of competent judges, who are generally very hard worked at this season, would be saved. They would be able to give more care and time in making the awards. What is more annoying to a business man than to receive a notice a day or two previous to the show stating that judging will commence punctually, say, at eleven o'clock, and he puts forth every effort to be there at the time, only to find that he will not be required for at least another hour.

E. BECKETT.

Aldenham House Gardens, Elstree.

THE KITCHEN GARDEN.

THE BROAD BEAN.

DURING the last thirty years or so this vegetable has been greatly improved both from an exhibition and table point of view, and the cultivation is so simple that it may be easily grown to perfection by the professional, amateur, and cottager alike. Nevertheless, Broad Beans well repay good cultivation, as indeed do all vegetables. At one time it was a general practice to sow the seed during autumn for the earliest supplies, but the most modern one of raising them in boxes in early spring and transplanting them into open quarters is much to be preferred, as it entails less labour and the results are more satisfactory. The slight check will induce the plants to begin to bear much earlier, with better and more shapely pods obtained and little damage result from slugs and other vermin. The middle of January will be quite early enough to make the first sowing. I recommend boxes about 2 feet in length, 12 inches in width, and 4½ inches deep; these can be made by any intelligent labourer on wet days. Place a good drainage in the bottom, mix up a compost of three parts fibrous loam, one part leaf soil, or old Mushroom bed manure, with a little road grit added. The boxes should be filled about three parts full and made moderately firm when the Beans should be placed regularly on the same about 1 inch apart all ways. Cover them with some of the finest of the soil, thoroughly water in, and place in a cool position to germinate, such as a greenhouse or even cold frame. The young plants should be encouraged to make a stout, sturdy growth, and gradually but thoroughly harden in the open before planting out.

Three sowings at the least should be made in this way, and the last two or three in the open. Trenches should be prepared much in the same way as for

Celery, and give an unstinting supply of half-decayed farmyard manure, and fill up nearly level with the surface. The Broad Bean enjoys a deep uninterrupted root run. Double rows should be placed in each trench, 3 feet apart at least, and the width of each 18 inches, the rows should be 10 inches apart and 8 inches between the plants. Lift with a good ball with a garden trowel, place plenty of finely-sifted cinder ashes between them to prevent the plants being ravaged with slugs, as these have a great liking for the young growths; give copious supplies of both clear and liquid farmyard manure water when in active growth during dry weather, and after the plants show plenty of bloom the points should be pinched out, and when extra fine pods are required remove all side growths. The plants should be supported by driving in a few good stakes and stretch two lines of stout tar cord along them to keep in an upright position. Should black aphid make its appearance thoroughly syringe the points with strong soft soap and water, a safe and sure insecticide for this.

The best strain that I am acquainted with is Carter's Leviathan. It is a fine exhibition variety, also very prolific, and of excellent quality. Sutton's Exhibition Longpod is also good, and for the latest supplies the Broad Windsor is best. The new green variety is a great improvement.

Broad Beans do well if grown in 8-inch pots. For very early crops the seed must be sown very early, and at no stage must any attempt at forcing be indulged in. Five Beans in each pot are ample. The pots should be filled about three parts full when sowing, and when the plants have reached the top of the pots earth up to within 1 inch of the top. Each plant should be staked separately, and the best position to grow them in is on shelves near the glass in a cool fruit house and plenty of air given, especially during the time they are in flower. They may be placed outside in a sheltered, sunny position to perfect their fruit, and plenty of manure water should be given. Good Beans treated in this way may be looked for about the middle of May, and these are generally much appreciated. I advise Leviathan for this treatment.

E. BECKETT.

SMITH'S ORNAMENTAL RUNNER BEAN.

THIS Bean evoked much interest at the recent Chiswick show, and doubtless many of your readers would be glad to hear more about it.

S. S.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

TYING PLANTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The note by Mr. Wolley Dod (page 254) on tying plants deserves to be read and re-read, for on this subject most of us have, I think, much to learn, the great thing being to give the necessary support without an undue display of stakes. At the same time, as pointed out by Mr. Dod, position and other features must have due consideration. My experience of tying principally consists of plants grown in pots, and on this point a great change has taken place within recent years, for the average young gardener of the present day quite ignores the points that were at one time insisted upon as absolutely necessary. I do not refer to the tying of specimen plants in which the pot was in some cases stuck nearly as full of stakes as the spines in a hedgehog, but rather to the use of a single stake, absolutely necessary to the proper support of the plant. In this case the point insisted on was that the stake be carried nearly if not quite to the bottom of the pot, in order to ensure its stability, whereas now it is, in the majority of cases, simply stuck into the soil, so that if the plant be shifted a few times or stood out of doors it quickly becomes loosened, and then it is a case of the plant supporting the stake, instead of *vice versa*. My remarks are by no means founded on an isolated instance, but on dozens of young gardeners that have come under my observation. Numerous cases, too, have been noted in which plants so tied have been sent by rail, with the result that the sticks loosened and many plants were broken; whereas, if properly secured, they would bear the journey unscathed. For this reason I do not favour the use of Bamboo stakes, neat though they be, for the hardened glaze-like surface takes no grip of the soil, and the stem soon sways about.

T.

ARAUCARIA IMBRICATA FRUITING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—To many of your readers records of the Araucaria producing fertile seeds from which



A ROW OF CARTER'S LEVIATHAN BROAD BEAN IN THE GARDENS OF ALDENHAM HOUSE, ELSTREE.

plants have been raised are interesting. In the grounds attached to Leighton House, Westbury, Wilts, are many fine trees of these and Wellingtonias, forming an avenue of considerable interest and development. Extending on either side of a fine broad gravelled walk some 300 yards in length they form a splendid picture. These noble trees have been planted from forty-five to fifty years, and many of them have attained noble proportions. For some years past fertile cones have developed, and young flourishing specimens, varying in age and height, have been raised and are planted in reserve grounds near the garden. These should, in course of years, be even more interesting than their parents, simply because they have been home-raised. Some of the finest trees tower upwards probably 40 feet, and the Wellingtonias, being equally luxurious, are furnished beautifully to the ground. The Araucarias, as these trees commonly do, have lost many of their lower branches. They are not so effective as single lawn specimens as in avenues. Iron minerals abound in the neighbourhood of Leighton, the furnaces for years past being a familiar landmark to the many who pass through the railway station of Westbury. Yet, though so many acres have this mineral close to the surface, Leighton itself partakes more of the nature of the adjacent Westbury Hills, in which is hewn the far-famed white horse in chalk.

The soil is fertile, porous, and dark in colour. Flowering deciduous and evergreen trees and shrubs grow luxuriantly in all parts of the Leighton grounds. Fierce gales sweep across from the hills in autumn and winter, but the Araucaria avenue has been so carefully protected by outer belts of shrubs that to this much of the success of their growth is undoubtedly due.

W. STRUGNELL.

NURSERY GARDENS.

W. B. ROWE AND SON, BARBOURNE
NURSERIES, WORCESTER.

NASH, the famous Worcestershire historian, wrote in 1781 that "an article of husbandry almost peculiar to Worcestershire is fruit," and adds, "the quantity of Cherries brought to Worcester market in a plentiful year is amazing; two or three tons are often sold on a Saturday before eight o'clock in the morning." It would be difficult to say how long the county has been famous for its fruit production, for history is silent on this point. As far as I am able to ascertain it must have been celebrated for many ages. Of late years the decrease in the area under cultivation for Hops has been met by a considerable increase in fruit plantations, Apples, Pears, and bush fruits being planted very largely. That there is a keen and ever-increasing demand for trees of all the really good market varieties is evidenced by the numerous important nurseries situated in and around the city of Worcester. One of these has become celebrated throughout the length and breadth of the United Kingdom by the introduction of the finest early market Apple in existence, Worcester Pearmain, which received a first-class certificate from the fruit committee of the Royal Horticultural Society as long ago as October, 1875. This variety, as everyone knows, has been enormously planted, and as a consequence there is not—in Worcestershire, at least—any likelihood of a dearth of early Apples in an average season. Unfortunately, this is by no means the case with late Apples, which, on the whole, have been sadly neglected by Worcestershire planters, even such a grand variety as Newton Wonder having been but little planted until the last year or two. Now, however, partly owing to the ungenial springs experienced of late years, the tide has turned, and on every side a demand for late-flowering, as well as late-keeping, Apples has sprung up. Until quite lately the difficulty which presented itself lay in the fact that not only are really good late varieties suitable for market work exceedingly few, but not one of

them is so late flowering as Court Pendu Plat. If I had been asked twelve months since whether anyone was endeavouring by systematic crossing to produce a race of late-blossoming Apples, my reply would have been that I had never heard of any efforts being made in that direction. The first intimation I received that this was actually being done was in September last year, when Mr. A. H. Pearson and myself went over to Madresfield to spend part of a day with Mr. Crump, and were then shown a fruit of

APPLE KING EDWARD VII.

raised by Messrs. W. B. Rowe and Son of Worcester. Since that time it has won unqualified praise from many of our leading fruit experts, and on March 24 last was exhibited in perfect condition before the fruit committee of the Royal Horticultural Society, who bestowed an unanimous award of merit upon it. Several members of the fruit committee were so favourably impressed by this variety that they proposed a first-class certificate for it, and it does not appear at all unlikely that the premier award will be granted at no very distant date.

Receiving quite recently an invitation from Messrs. Rowe to visit their nurseries, I chose a fine autumn day and gladly availed myself of the offer. The nurseries, which occupy about 45 acres of land and are situated to the north of the city on the main Droitwich Road, have been in the occupation of the Rowe family for almost two centuries, and are chiefly devoted to the culture of fruit trees and Dahlias—the two great specialties of the firm. On arriving at the nursery I was taken round by Mr. H. A. Rowe, who informed me that he entered into partnership with his father eight years ago, and has since devoted all his attention to the hybridising of hardy fruits, more particularly the Apple. The Cactus Dahlia is also receiving special attention, and Messrs. Rowe are endeavouring to raise a race of plants which will be more suited for garden decoration than are many of the varieties at present in commerce. Our first visit was to the

DAHLIA GROUNDS,

and, although the plants had been sorely tried by the severe gale scarcely a week previous to my visit, they afforded a most admirable display, many of the flowers being in perfect condition. I ought to say that most of the soil of this nursery is a good light sandy loam, and one that is therefore very easily worked. Almost the first variety to catch my attention was Mrs. Mawley, a magnificent yellow, with a larger flower and more substance than Mrs. J. J. Crowe, and remarkable for its early-flowering propensity. Next to this was Coronation, brilliant scarlet, of finest form and the flowers thrown well above the foliage. Two very lovely bicolor varieties were Columbia and Gabriel. The flowers of the former are very taking, being bright scarlet tipped with white, but unfortunately the stems do not hold them up enough to display their full beauty. Gabriel is superior in this respect, and thus produces a better effect. The flowers are a rich shade of velvety crimson, edged with a ring of white. Some of the older sorts are really splendid garden plants, and these are largely grown at Barbourne. J. W. Wilkinson, Mary Service, Britannia, Ruby, Capstan, Countess of Lonsdale, Lodestone, and Starfish were literally smothered with blossoms and fast expanding buds. One of the very finest of all for use in the garden is Floradora, a dark crimson sort with splendid stiff stems and very free flowering. I was next taken to see a plantation of seedlings, almost all of which were in full bloom. Three of these, as yet unnamed, were shown by Messrs. Rowe for the first time in their exhibit which gained the premier award at Shrewsbury. The habit of each seedling is being carefully studied by Messrs. Rowe, who are determined on no account to send out any variety with weak stems or bad growth. If only Dahlia raisers generally could be induced to take as much interest in the habit of a plant as they do in the individual flowers, we should not find useless varieties such as Lord Roberts (whose stems strongly remind one of a piece of tape) being distributed. But the Dahlias

had already absorbed too much time, and, as the real object of my visit was to make a closer acquaintance with Messrs. Rowe's new Apple, I had to leave the seedlings without examining them as closely as I could have wished. As previously mentioned, the culture of

FRUIT TREES

forms the leading feature at these nurseries, and it is impossible to speak too highly of the general excellence of the stock. Passing through some large plantations of such leading market Apples as Worcester Pearmain, Dumelow's Seedling, Cor's Orange Pippin, Warner's King, Ecklinville Seedling, and Stirling Castle, I was first shown the oldest plantation of this new variety, and was thus afforded the opportunity of seeing the trees in fruit. The most striking point about King Edward VII., undoubtedly, is the fact that it only blooms six or seven days in front of Court Pendu Plat, and is never in flower much before the third week in May. To this must be added that it spurs as freely as Worcester Pearmain, while the fruit keeps well and easily till April and May, and Messrs. Rowe have had it in good condition as late as June. A cross between Blenheim Orange and Golden Noble, it retains a good deal of the flavour of the former, while it greatly resembles Golden Noble in its yellow skin and general appearance. I noticed that the foliage of this variety is of an exceedingly dark green colour, and that the growth is short-jointed and erect. As a late culinary fruit it is destined to become extremely popular, because the fruit is solid and juicy and is not inclined to shrivel when kept. If any further recommendation is really necessary, I might add that both Mr. William Crump and Mr. James Udale have had the variety under observation for some time, and both these gentlemen have spoken of it to me in terms of the highest praise. Altogether I saw about 10,000 good trees of

THIS NEW APPLE,

all in the pink of perfection—bushes, upright cordons, and standards—and no less than 15,000 have been grafted this season. Market growers, for whom Messrs. Rowe especially cater, have been very much struck with this variety, and one large grower has recently purchased fifty trees. Space precludes my describing at length the other occupants of this nursery, which include a splendid selection of Pears, Plums, and Cherries, in addition to the smaller fruits. To anyone who takes an interest in the improvement of our hardy English fruits, I would strongly advise them to visit this well-managed nursery. King Edward VII. is but the forerunner of a new race of Apples, which will no doubt in the future assist English growers to combat the increasing foreign importations; or, to put it in Mr. H. Rowe's own words, "Our great aim is to supply the public with English Apples when the sorts now in commerce are past their season, and you may tell the readers of THE GARDEN that we have several more very promising Apples to place before the public."

A. R. GOODWILL.

MISCELLANEOUS.

CROTONS AT ALDENHAM.

FOR room or table decoration, or for adding colour to other plants of a sombre hue in groups of miscellaneous subjects, no plant can equal well grown Crotons. The finest batch of plants I have seen for a long time are now growing in the Aldenham House Gardens, where Mr. Beckett produces such wonderfully good results generally. The plants are not of specimen size, but really useful decorative plants, the tallest about 3 feet high and mainly growing with one stem, as when required for vase or room decoration plants with several stems are not so effective as those confined to one. The pots are small for such plants, none more than 7 inches in diameter. The remarkable point about these Crotons is the luxuriance of leaf combined with

the magnificent colouring of each variety. There are many plants about 1 foot high, with foliage down to and hiding the pots. Such as these are extremely useful.

Certainly the plants occupy an ideal site, the southern side of a low span-roof house, in which Cucumbers and Melons are also growing. Here the Crotons obtain the three essentials to good cultivation, full exposure to sunlight, abundance of moisture, and absolute freedom from insect pests, which too often seriously cripple the growth. The method of propagation so as to have full-sized perfect plants in the shortest time is that of "ringing" the plants in the autumn after they have completed their summer service. For smaller plants cuttings inserted in bottom-heat and carefully tended quickly grow into useful material. For guidance in the selection of suitable varieties I give the names of the most striking Crotons here grown, classing them into two sections—narrow and broad-leaved varieties.

In the former section the following are the best: Countess, Johannis superbus, Warrenii, elegantissimum, Golden Ring, Heathii elegans, gordonianum, majesticum, angustifolium, Aigburth Gem, picturatus, Prince of Wales, Sovitzianum, Weismannii, Cheloni, Mrs. Dorman, Vancasterii, Mortii, Youngii, Countess superba, caudatum tortile, massangana, rhodeckiana, and ruberrimus. Broad-leaved varieties: Baroness Rothschild, Lord Wolseley, Mortefontaine, Delight, Williamsii, Disraeli, Queen Victoria, Reedii, Etna, Flamingo, Victoria superba, Thomsonii (very rich), Princess Matilda, Hawkerii, and Undulatus.

E. MOLYNEUX.

GARDENS OF JAMAICA.

(Continued from page 254.)

THE BROAD LEAF

is a tree which is commonly used for this purpose. They also grow to an enormous size, so as to rival any of our largest and finest trees in England. It is very grand to see the trunk rising to such a vast height above the ground, spreading abroad its arms far above. The innumerable creepers and parasitical plants which abound in these regions love the companionship of the old Broad Leaf. They cluster around it, climbing up higher and higher every year, their own size increasing till they almost cover the trunk and raise their heads as high as that of their indulgent protector.

THE IRON WOOD

may be here noticed, not on account of any particular utility, but because it is so wonderfully hard as well to deserve its name. It is hardly ever used for cabinet work, for its close and tough fibre is almost proof against the best tools. Another tree that almost rivals it in hardness is

THE BRASILLITO.

This is, however, more frequently used, inasmuch as it is more easily worked up. Its toughness renders it admirably suited to the manufacture of cart wheels. The colour of the wood is very beautiful, being of a streaky red, which is capable of fine polish; if obtained in sufficient quantities it would be well suited for cabinet work. This might be also said of

THE YELLOW SANDERS,

the name of which will speak for its colour. What, however, constitutes the chief beauty of the wood is that which would render it most unlikely to be made use of. It is gnarled and knotted to a degree hardly equalled by the Walnut. The natural yellowness of the wood gives the most beautiful and delicate appearance to it when it is highly polished. But the carpenters are always unwilling to try their tools upon such a tough and cross-grained customer. The tree has something the appearance of the Mountain Ash, producing yellow instead of red berries. Of a similar kind is

THE PRICKLY YELLOW,

which derives its name from the rough large prickles which cover its trunk. In appearance and character, however, the trees are very much alike.

THE SATIN WOOD

may be placed under the same category. With this last our readers will be more familiar however, for although it is not common it is often met with. There is another wood which may be used for building purposes, but which is far more valuable for the dye which it contains. This is

THE FUSTICK.

The tree is rather small. Its trunk and branches are not regular or straight. There is nothing attractive about its appearance, but as a dye-wood the price of it is considerable. The dye is of a yellow colour, and is in very general use in our English manufactories.

THE LIGNUM VITÆ

is a very hard wood; on this account it is not easy to work up, and the tree being small carpenters make but little use of it. It is, however, good wood for cabinet work, and takes a beautiful polish. When the bark is punctured a fine clear gum exudes from the tree. This gum is considered to be very valuable for medicinal purposes, and it is in this way used by chemists in England. One of the most beautiful trees with which we meet is

THE POMEGRANATE.

This is more like a shrub than a tree, and although growing most freely in Jamaica is found in greater perfection in some countries of the East. The foliage of the Pomegranate is of a light green; many of the leaves, which, although longer, are not unlike the common Privet, have a yellow tinge, which, especially at certain seasons of the year, give it a very pretty variegated appearance. The blossoms are of a rich bright crimson colour, having something the form of an immense Fuschia, and clustering together on various parts of the tree. The ordinary size of the fruit is that of a small Orange, but in the East they are much larger. The fruit consists of a thick outer rind. When this is broken the inner part of the ripe Pomegranate is seen to consist of seeds each about the size of a Pea, lying closely together in irregular compartments. The colour of these is of the most beautiful red and carmine. This coloured part consists of a delicate pulp, which contains the juice. But while in Jamaica the seed within is large and woody, in Palestine it is very small, so that in the Pomegranates found there, when some fine sugar is sprinkled over the pulpy seeds they melt away into juice.

What is that large straggling tree which has here and there that peculiar blossom with something the appearance of the Passion Flower? That is

THE ROSE-APPLE,

so-called from the fruit which it produces having a pleasant Rose flavour. But they are, nevertheless, too insipid and too unwholesome to be much eaten. The Apples are very small, but when ripe they have the most beautiful rosy appearance. Instead of being compact and firm like the English Apple, the eatable part is very much like a thick rind, while the cavity within contains a large stone. It may be mentioned that common Apples are cultivated on the higher mountains of the island, and are very tolerable both in size and flavour.

THE PLUM

is a very different fruit to the one known in England by that name. It is something like a very large Damson, the great difference being that the stone of the Jamaica Plum is comparatively much larger and has somewhat the form of that of the Peach. Of these Plums there are two kinds. One is called the Hog Plum, and is of a red colour. They are the most palatable, but also the most uncommon. The Yellow Plum can never be eaten when it is perfectly ripe, for they are very attractive to maggots and insects, which greatly infest them. The tree has something the appearance of a small mis-shapen Oak with crooked branches and scanty foliage. That of

THE KENEF

is, however, quite the opposite. It is very thick and dark, and a fine tree of this kind is particularly attractive. The form of it is rounded and regular. The fruit grows in large clusters attached to a

stalk, so that forty or fifty may be found together. This fruit corresponds with many that are found in the West Indies, having a soft pulp which, however, adheres very closely to the stone. The acid flavour is very delightful, but it is too astringent to be wholesome. The skin which covers the whole is more like a shell, and is cracked or broken as such. It is of a green colour.

(To be continued.)

THE EDITOR'S TABLE.

DAMASK ROSE PERPETUAL.

Mr. T. Smith sends from the Daisy Hill Nursery, Newry, flowers of this beautiful garden Rose, so fragrant and so rich in colouring, a warm purple. In the rush for novelties we forget the existence of sweet old-world Roses such as this.

CARNATION MISS AUDREY CAMPBELL.

Mrs. Martineau sends from Hurst Lodge, Berke, flowers of this beautiful Carnation. We have never seen blooms so fresh and pure in colour and in such abundance at this season. None of the flowers were in the least degree split, in spite of the heavy rains and sunless weather. The following note which accompanied the flowers is useful: "I send you a small gathering of Carnation Miss Audrey Campbell from the open. I find it far and away the best outdoor variety there is, beating the much-praised George Maquay, though grown side by side and under similar conditions. My plants flowered profusely from June till the beginning of September, and are now blooming again splendidly in spite of the rain from which, in common with the rest of the Thames Valley, we are suffering. I counted on one plant last week forty-three buds and blooms. I have had them almost as large as Cecilia in fine weather. They are grown on borders in the kitchen garden. The ground was well trampled on before planting, and also in my Rose beds in a more exposed place. Raby Castle is sending up a few late blooms, but my bed of Audrey Campbell looks like July rather than October."

FLOWERS AND THE SEASON.

Sir Charles Wolseley, Wolseley, Stafford, writes: "I send you a few flowers, not as specimen blooms, but to show the effect of this extraordinary season on the rock and wall garden. Many of these have been in bloom for months in spite of the heavy rains, and these individual blooms were gathered after three days continuous rain. Primulas, Zauschneria californica, and Meconopsis cambrica fl. pl. have been in flower since the middle of June; Geum Heldreichii has bloomed continually since May 10; Achillea tomentosa on wall, Arenaria grandiflora, a mass of bloom ever since May 22; Polygala Chamaebuxus purpurea (flowering for second time), Gypsophila repens (flowering second time), Polygonum vacinifolium and Lithospermum prostratum, one plant has been continuously in bloom ever since the middle of March, and has been the most effective and satisfactory plant on the rockery; Saxifraga Cymbalaria has been flowering well all the summer; Androsace lanuginosa has been blooming most luxuriously with its branches hanging down over rocks ever since June 7; Linaria alpina has been continuously in flower on wall all the summer, by far the most satisfactory place I have tried it in; Hypericum repens on wall, Linum flavum and Erica vagans: Less than a week ago I counted forty-five different species in flower on the wall and rock garden, but the rain of the last week has spoilt many of them for the present. It seems that a wet season like we have had suits rock and wall plants if it suits nothing else."

We thank our correspondent for this excellent note. A box of flowers sent bear out the above remarks; there were Primroses and the rock plants named. We hope other correspondents will tell us of their experiences in this year of wet and absence of sun.

STRIPED ANTIRRHINUMS.

I enclose for your inspection a few spikes of striped Antirrhinums from a very fine strain. It is rather late to send the spikes, as the weather recently has not been conducive to the well-being of outdoor flowers. At the same time you will be able to see the delicate markings, and also get an idea of the size of flower and spike. We have picked up the strain in an old cottage garden. It has been grown and selected by the owner for years, who guarded it with great care, and whose pride it was that it had never been beaten wherever shown. The individual blooms were $1\frac{1}{2}$ inches deep and $1\frac{1}{2}$ inches across the front, the spikes bearing from 8 inches to 1 foot of expanded flowers. We have selected the best, and are saving them by cuttings to grow for seed purposes. It is a great wonder that the fine striped Antirrhinums are not grown as much in the south as the north, where they are in every flower show. We also enclose a few pieces of McDougal's Prize Parsley, an excellent curled variety from the famous old

the Isle of Wight, and goes on till November, and its delicate scent is quite as apparent now as it was in the summer.

Birds and flowers.—A somewhat unique exhibition was held in Norwich a short time ago by the promoters of the Ornithological Society there, who each year hold an exhibition for the Norwich canary and other song birds. In the schedule were classes for pot plants and cut flowers. A few entered for the former, and the latter were well filled. The combination of plants, flowers, and birds gave excellent results.—H. PERRY.

A new fruit—Apple Middle Green. This dessert fruit is a valuable introduction. All fruit lovers of late years have followed Mr. Seden's labours with considerable interest and attention, and he has certainly given us some valuable additions to our hardy fruits, especially Apples. This last is by no means the least, as it is a delicious fruit, and if a good cropper it will prove a valuable standard early dessert Apple. The name is evi-

dently taken from the locality where the Apple was raised. The fruits are not green (as one might be favoured for assuming), but rich yellow, except on the sunny side, which is reddish, and in this respect it resembles a Cox's Orange Pippin. The fruits are very shapely and of medium size, smooth, and very juicy. This new fruit was the result of crossing Frogmore Prolific and Blenheim Orange. Both varieties are well known, and the new fruit well supports their reputation. It received an award of merit at the last meeting of the Royal Horticultural Society—the 13th inst.

The Dahlia in America.—The Dahlia is very much to the front this year. The lay press devotes much space to the exploiting of this very popular flower. It is certainly a matter of gratification to observe the continued increasing popularity of this gorgeous autumn-flowering plant. As a result of the peculiar weather conditions of this year we have not heard so much of the "When to Plant"

question. Indeed, early planting seems to have given peculiarly satisfactory results this year.—*American Gardening.*

The Thomas Humphreys testimonial.—Mr. Richard Dean, the secretary of the testimonial fund, reports that the sum of £43 11s. was subscribed by seventy-four persons in sums varying from 2s. 6d. to £1 1s. The sum of £1 15s. was spent in printing, stationery, postage, &c., and the remainder, viz., £41 15s. 6d., was expended in preparing the illuminated address, and in purchasing the cabinet of outlery and tea service which was presented to Mr. Humphreys with the address. A letter has been received from him expressive of his deep thankfulness and of his appreciation of the excellent "send off" on the occasion of his leaving London for Edgbaston.

Opening of Gray's Inn Gardens.—The gardens of Gray's Inn, which stretch along the south side of Theobalds Road, will shortly be opened to the public view. For years they have

been hidden by a high, inartistic brick wall, and, consequently, what would have proved an additional oasis in a desert of bricks and mortar has been lost to the public. Now, however, the wall has been demolished, and in its stead handsome iron railings are being erected, through which the finely-timbered gardens will easily be seen. Gray's Inn Gardens—or, as they used to be called, Gray's Inn Walks—have many associations. In the reign of Charles II. the gardens formed a fashionable promenade. The reference to them of the late J. H. Jesse is well worth quotation. He says: "This spot was a favourite resort of the immortal Bacon during the period he resided in Gray's Inn. It appears by the books of the society that he planted the greater number of the Elm trees which still afford their refreshing shade; and also that he erected a summer-house on a small mound on the terrace, where it is not improbable that he often meditated, and passed his time in literary composition. . . . As late as the year 1754 there was standing in the gardens of Gray's Inn an octagonal seat covered with a roof, which had been erected by Lord Bacon to the memory of his friend Jeremiah Battenham. Pepys, the diarist, was an habitué of the spot, and in 1682 he is mentioned as taking his wife there to note the fashions of the ladies. Sir Roger de Coverley, Butler, Cleveland, and Palmer (the mechanician) are among the many notables who trod the broad walks of the gardens."—*City Press.*

Royal Caledonian Horticultural Society.—We have received an advance prize schedule of the spring show to be held on May 25 and 26, 1904. Special attention is directed to the change of date to May. Prizes are offered, to under gardeners only, for a plan, drawn to scale (32 feet to 1 inch), for laying out a piece of ground about 6 acres in extent, as shown in an accompanying plan. The first and second prizes are given by Sir John Gilmour, Bart., Montravel, and the third prize by the society. This society has an excellent rule that all exhibits shall be correctly and legibly named. All entries close May 18, and plans for the competition must be sent in by April. Mr. P. Murray Thompson, 5, York Place, Edinburgh, is the secretary.

Honours to horticulturists.—Following the Ghent Quinquennial exhibition the distinction of Chevalier de l'Ordre de Léopold has been conferred upon the following horticulturists among others: MM. Peters, Orchid grower at St. Gilles, Brussels; Louis de Smet-Duvivier, Mont-Saint-Amand; Armand de Meulenacre, secretary of the Ghent Agricultural and Botanical Society; and Adolphe Vanden Heede, vice-president of the Horticultural Society of the North of France. The Portuguese Government has recently conferred upon M. Viger, president of the Société Nationale d'Horticulture de France, the grand cross of the merite agricole of Portugal. M. Abel Chatenay, the distinguished secretary of this society, has been made a commander of the same order.

Crocus hermoneus.—This interesting species is now flowering freely at Kew. It was first discovered by Theo. Kotschy in the melting snow at an altitude of 9,000 feet, near the summit of Mount Hermon, during his Syrian journey in 1855. The flowers of this species were unknown when Maw's monograph of the genus was prepared, only the corm, leaves, and fruit being represented on Plate XLIV. Live corms were received from George Egger, a nurseryman at Jaffa in Palestine in 1901, and a few flowered the same year in the beginning of October. Belonging to the section of the genus called Fibro-Membranacei it has a corm somewhat similar to *C. hyemalis*. The flowers, which are produced two or three to a corm, are somewhat like some forms of *C. cancellatus*, with spatulate segments $1\frac{1}{2}$ inches in length and about one-third of an inch broad at the widest part. Pale lilac on the inner surface they are feathered on the outside with three to five darker lines. The orange-coloured stigma is divided into several long filiform branches, and the stamens are a light yellow. *C. hermoneus* is not so hardy as many other members of this genus, and needs protection in winter or a warm sheltered position.—W. IRVING.



NEW APPLE MIDDLE GREEN (NATURAL SIZE).

Kilbarchan strain, now almost extinct.—G. M., Benston, Johnstone, N.B.

An interesting contribution. The Antirrhinums were very fine, and we were glad to see so good a Parsley as McDougal's Prize.

ROSE MME. ALFRED CARRIÈRE.

Lady Thornycroft sends from her garden in the Isle of Wight blooms of the Rose Mme. Alfred Carrière, to show what a beautiful and hardy variety it is. Notwithstanding the recent gales and storms of rain several large plants, or rather bushes, of this Rose trained over some arches are still full of bloom and leaf, and apparently in the best of health, although this past summer has been a most trying one for Roses. All the flowers sent were cut from plants on their own roots; cuttings taken about nine years ago from a Mme. Alfred Carrière Rose, which grew in Lady Thornycroft's garden at Chiswick. This Rose begins to bloom early in

SOCIETIES.

THE HORTICULTURAL CLUB.

THE usual monthly meetings of this club at the Hotel Windsor, on Tuesday, the 13th inst., were resumed after the customary vacation interval, and subsequently to the house dinner under the genial presidency of Mr. Harry Veitch, a most interesting lecture was given by Mr. Charles E. Pearson entitled "Birds Nesting in Russian Lapland." The lecture was illustrated by a large number of beautiful lantern slides prepared from photographs of birds' nests and eggs of many kinds taken *in situ* and views of the scenery within the Arctic circle, together with a number of native plants and flowers. Mr. Pearson began by apologising for choosing a subject somewhat out of the horticultural line, but, in point of fact, apart from the intensely interesting pictures of eggs and nests, there were such charming examples of Arctic flowers and Arctic landscapes that an apology was utterly needless, especially in view of the lecturer's treatment of his subject, at once humorous and instructive.

Clutches of eggs of a great number of birds were shown exactly as they were found, the photographs, being taken from above, thus affording a full view, and it was really marvellous to note in many cases how the seemingly apocryphal blotchings and markings of the eggs masked them from prying eyes owing to the close imitation of their surroundings. In some cases, too, it was difficult to dispel the idea that the birds had not also selected a site amid rounded pebbles of similar outline and colour to the eggs in order to aid this masking, so exactly did they resemble each other. Eggs and nests, the latter in many cases being practically non-existent, the eggs lying among bare stones, were shown of the buzzard, redwing, eagle, gulls, eider-duck, wild swan, oyster-catcher, dotterel, and many others, each being accompanied by a vivid description of the habits of the birds, and the various adventures which attended the discovery of the carefully-hidden eggs.

Hours of motionless waiting, accompanied by myriads of industrious mosquitoes working their sweet will on every exposed portion of skin were sometimes needed ere the disturbed mother bird would settle down on the otherwise undisturbable nest. Long leagues of difficult travel over several feet of treacherous snow precluded many of the discoveries, and in this latter connexion a most laughable description was given of the difficulty of bargaining with a rapacious Jehu by the mediation first of an interpreter who translated the English into Norwegian, then another who did the Norsk into Finnish, and, finally, a Finn who knew some Russian, no little speculation resulting as to the form in which the original remarks reached their destination.

Some of the photographs gave a clear idea of the marvellous rapidity of Arctic vegetation during the brief summer. A dense and robust mass of *Calla palustris* (the Marsh Marigold) was, for instance, shown in full flower on a spot which three weeks previously was deep in snow and only fifteen days before had been observed as just evidencing growth. Barley is stated to be ripe within thirteen weeks from sowing. This the lecturer imputed to the long and continuous daylight, and a relative photograph showed the midnight sun fairly high in the sky. Some lovely specimens of *Myosotis alpestris*, *Silene acaulis*, Bog Cotton, and other flower plants evidenced also the beauty of the Arctic flora as well as its rapidity of development.

The lecture, indeed, was so replete with interesting facts and graphic description that we can do no more than briefly indicate the lines followed. A very hearty vote of thanks to Mr. Pearson for the great treat afforded by him, both pictorially and verbally, concluded decidedly one of the most pleasant and instructive meetings in the annals of the club.

EALING AND DISTRICT GARDENERS' SOCIETY.
LECTURE ON THE SWEET PEA.

THE local interest in the cultivation of this fragrant flower was shown when a few nights ago Mr. H. J. Jones, of Lewisham, addressed a large gathering of members of the above society at Ealing, Mr. Richard Dean occupying the chair by request. Dealing briefly with the history and development of the Sweet Pea, Mr. Jones passed on to describe three types of the flower: 1, With erect smooth standards; 2, with hooded standards; 3, the reflexed standard. Each of these types had their admirers, and some beautiful varieties were included in each division. Then dealing with the culture of the flower, the importance of plump, vital seeds was enforced; these to be sown in a good loam previously trenched, Mr. Jones recommending that at the bottom of a trench 2 feet in depth should be placed a layer of good farmyard manure, or some fertiliser of known virtue, as the roots of Sweet Peas travel a long way in search of nutriment, and especially so if the season proved a dry one. Crude manures should not be allowed to come into contact with the roots of young plants. Some sowed in pots and transplanted to the open to secure an early supply; some on favourable positions sowed in autumn, though certain risks had to be run; generally sowing was done in the open in early spring, according to the weather. The thick sowing usually resorted to was deprecated, as the plant naturally branched freely, and especially so if the leading shoot was pinched out when the plant had reached a certain height. A succession of bloom could be secured by successional sowings; also by keeping the seed pods picked off, and also by cutting back the plants at a height of 3 feet or so, when they would quickly break into growth and bloom abundantly, though the plants would not again reach their former height. Propagation by cuttings made of the young tops was advocated by Mr. Jones in order to increase the stock of a new or rare variety. Only the best varieties should be grown, and with few instances only those which produce three blooms at least on a stem. The lecturer described the process of fertilisation by human agency, stating that it had to be done when the blooms were quite young; and he recommended

careful selection, saving seed from the finest developed flowers. In the course of a cheery address, which was greatly appreciated, Mr. Jones threw out many most useful cultural hints, some of them of a novel character, and he was warmly applauded at its close. In the course of questioning which followed, the lecturer was invited to describe a spray of Sweet Peas, which he did by instancing the custom at all Sweet Pea shows, namely, a single stem with two or more flowers upon it. This is a matter which needs to be set forth more explicitly in schedules of prizes, as some exhibitors stage as sprays branches containing several stems with flowers. Another question put to Mr. Jones was, had the improvements made in the Sweet Pea by Henry Eckford and others resulted in robbing the flower of its perfume to any extent? Mr. Jones said he thought not, and instanced the fact that some of the latest additions to the varieties were remarkable for the abundance of their scent. Hearty vote of thanks were passed to Mr. Jones, and to the chairman for presiding.

SHEFFIELD CHRYSANTHEMUM SOCIETY.

THIS is one of the most go-ahead societies of its kind in the North. Its enterprise and enthusiasm are unbounded, and, in consequence, it maintains its position. Tempting prizes are provided in the open classes at its exhibition, no less a sum than £36 and two silver medals being offered in the two principal classes—one for twenty-four incurved, and another for twenty-four Japanese blooms. These competitions always bring together the best growers from the South and the Midlands, and blooms of the highest quality are freely displayed. Although there are good prizes in the open classes, those open to growers living within a radius of twenty miles of Sheffield are handsomely provided for in numerous classes. The competition in the amateurs' and cottagers' classes is not the least important feature in this fine show. It is really astonishing what some of these growers produce in the way of flowers. Incurved varieties are wonderfully well shown, and so keen is the rivalry in all classes for cut blooms that as many as eight prizes are awarded in each class. A pleasing feature in the display is the competition for two blooms each of the members of the "Rundle" family, viz., Mr. G. Glenny, Mrs. George Rundle, and Mrs. Dixon, truly a lovely trio. By these means these charming little flowers are kept to the front. As a rule a large number of good blooms are shown, and in several instances they are superbly finished. The well-known Cutlers' Hall has again been engaged for the exhibition, which with its smaller halls and ante-rooms may confidently be expected to be again well filled. Owing to the lamented death of the late Mr. W. Housley, who acted as secretary for so many years, the librarian, Mr. M. H. Willford, has accepted the secretaryship. Naturally he is anxious to make the forthcoming exhibition, which takes place on Friday and Saturday, November 13 and 14, a great success, and for this reason he will be glad to hear of anyone desirous of competing. His address is 96, Greenhow Street, Sheffield.

The monthly meeting took place on Wednesday evening, the 14th inst., and may be regarded as an unqualified success. Encouragement is given to the cultivation of the early-flowering Chrysanthemum, no less than eight exhibits of three bunches each being staged, making, indeed, a brave show in this special competition. Foliage plants were well shown, as may be imagined when it is stated there were seven grand exhibits. Tomatoes receive much attention here, and the ten exhibits in the class provided on this occasion is proof positive of their popularity. Mr. S. W. Seagrave, Norfolk Market Hall, Sheffield, staged a fine collection of zonal Pelargoniums in twenty-four varieties in bunches, and the display was generally considered a very good one. Mr. W. Smith set up eight dishes of Potatoes, his varieties being Lord Rosebery, Mr. Bessy, Waverley, Duke of York, Up-to-Date, Red Russet, Pride of Tonbridge, and Britannia. Another member exhibited a collection of Apples, Pears, and Tomatoes, in all about thirty-six dishes. It was a really grand display, the fruits being of fine size and good colour, the best of the Apples being Warner's King, Lord Grosvenor, Peasegood's Nonsuch, and Lane's Prince Albert. A pleasing evening was spent by the company present in looking at photographs of some prize medal slides of flowers that were enlarged on the lantern screen, and which were of considerable interest. A fine collection of South African slides belonging to the popular honorary treasurer, Mr. J. G. Newham, added very considerably to the pleasure of the evening as they were successively thrown on the screen.

ALEXANDRA PALACE CHRYSANTHEMUM SHOW.

THE Highgate Chrysanthemum Society were so well satisfied with their initial effort at the Alexandra Palace last year that they have decided without the least hesitation to hold an exhibition at this popular North London resort for the second time. Although their show is not the earliest fixture of its kind in the South of England, it is one of the earliest, and the executive feel confident that the show will be a good one, and that success will attend their efforts. November 4, 5, and 6 should be a convenient and suitable period for the exhibition, and there is good reason for believing that many blooms will be forthcoming in the many different classes. The Highgate Society has always given encouragement to the exhibition of large blooms in vases, and again this year they offer a silver cup and five guineas as a first prize for twelve vases of Japanese blooms, distinct, each vase to contain five flowers. There is a second prize of five guineas, and a third prize of three guineas. Several other classes are provided for blooms in vases, and one in which four pounds is offered as a first prize for six vases of incurved distinct, five blooms in each vase. There are in all some seventy-five classes, and assuming that the competition will be equal to that of other years—and it is reasonable to expect keener competition—the display should be one of the best efforts ever seen in North London. The Central Hall at the Alexandra Palace is an ideal place for a Chrysanthemum show. There is plenty of

room and a good light. The blooms keep wonderfully well at the Alexandra Palace, so that visitors to the show on the third day will find the display full of interest. The committee propose to hold their annual dinner on the evening of the first day of the show in the banqueting hall, Sir Francis Cory-Wright, Bart., J.P., the president, taking the chair. This was an innovation of last season, and, having answered so well, is to be repeated. Mr. W. E. Boyce, whose address is 20, Holmesdale Road, Highgate, N., is the secretary, and he is working very hard to repeat last season's success.

EAST ANGLIAN HORTICULTURAL CLUB.

OWING to the inclemency of the weather the members did not turn up quite so strongly at the October meeting of this club. Mr. J. Powley presided, supported in the vice-chair by Mr. T. B. Field, and Messrs. G. Davison, J. W. Church, J. E. Barnes, and other prominent local horticulturists. An essay competition for single-handed gardeners upon "Violet Culture and How to Obtain the Longest Supply" did not meet with much approbation, as only one member (Mr. C. Matthews, Thorpe) sent in a paper. This was somewhat brief, but, as the vice-chairman said, contained points which showed that the writer was better able to grow than to place his methods on paper. Mr. Field urged the young members present, whom he was sure knew something of Violet culture, to enter into the discussion. Mr. Love, of Dereham, gave an outline of the methods he saw being carried on at the nurseries of Messrs. House and Co., the Violet specialists, during his recent visit there. Other members also took part in the discussion. A humorous and somewhat interesting paper was read by Mr. E. Yeomans, Gunn's Court, St. Giles, Norwich, upon his experience in budding and grafting. These, he said, ever since he was taught how to do them had a fascination for him. He generally practised whip grafting. An interesting point was told of how not many years ago the Pear trees in a certain vicarage garden he had charge of began to show signs of dying. The vicar asked if it were possible to save the varieties; he was told yes, and Mr. Yeomans set to work and grafted the forty varieties on one tree. They nearly all took, for a year or so ago he had a splendid mixed crop of over thirty Pears. This latter remark brought out a very animated discussion as to the utility of such a practice. Mr. Field during his remarks said no doubt many of the remarks and methods given by Mr. Yeomans did very well a generation ago, but would not apply to present-day needs. Mr. Love also mentioned the system of double grafting and budding, and promised to give a paper at some future date upon the subject.

A vote of thanks was unanimously passed to Hobbies, Limited, for the splendid collection of new and choice Cactus Dahlias they had set up. This gave members a good idea of the forms and colours of the new varieties, especially as no Dahlia show is held locally. Mr. Robert Holmes, Tuckwood Farm, brought up a root of Northern Star Potato which scaled 15lb. Mr. George Davison, Westwick House Gardens, showed some charming sprays of Polygonum cynosymbium of the Knapweed family, which evoked much interest. Mr. George Daniels has started upon the improvement of a lacerated petal in single Dahlias he found in his garden, and this season's forms shows marked improvements in the desired direction. The competitive exhibition tables were rather thin, Mr. C. Hines securing first for Apples and Mr. C. H. Fox, Old Catton, first for Pears. Mr. W. Rush and Mr. R. Abel had a close fight for the best flowering plant; the latter eventually won with a good Cyclamen. Mr. F. Carrington, an amateur vegetable grower of local repute, had some grand heads of Celery.

READING GARDENERS' ASSOCIATION.

"TRENCHING and its Advantages" was the title of a paper read before the members on the 23rd ult. by Mr. W. Turnham, The Gardens, Culham Court, Henley-on-Thames. The subject was treated in a most practical manner under the following heading: Inversion of soil. Tentative deepening or mixing, and the usual way of keeping the top spit in a natural manner on the top, and breaking up the subsoil. Special attention was directed to the fact that trenching was one of the most important operations within the whole range of horticulture, and that the very germ and substance of good trenching was to add to the bulk of the cultivated earth and improve its quality by converting a certain amount of hard subsoil into porous surface soil. Needless to say that with such a subject a lively and interesting discussion followed, in which Messrs. Powell, Neve, Townsend, Hinton, Cox, Tunbridge, Bright, Martin, Wilson, Judd, Exler, Herridge, Dore, and Foster took part. The society's certificate was awarded to Mr. E. S. Pigg, Ropley Lodge Gardens, Alresford, Hants, for a group of splendidly grown plants of *Primula obconica* roses. The individual flowers were very fine and of a deep rose colour. Mr. J. L. Naah, of Bulmershe Court Gardens, staged a dish of splendid Tomatoes, Best of All; and Mr. Durrant, The Gardens, Preston, vases of Dahlias and Chrysanthemums. A hearty vote of thanks was accorded to Mr. Turnham for his excellent paper and to the exhibitors. Six new members were elected.

The fortnightly meeting was held on the 12th inst., and notwithstanding the exceedingly rough weather between seventy and eighty members assembled under the chairmanship of the president, Mr. Leonard Sutton, to hear a lecture by Mr. G. Wythes, V.M.H., of Syon House Gardens, Brentford, on "Strawberries and their Culture." As the lecturer was well known to the majority present as an authority with regard to the Strawberry, and also as a large grower, much was expected by the members, and it was a source of gratification to all that the expectations formed were more than realised. The subject was not only treated exhaustively, but in a plain and practical manner. The points touched upon were: The preparing of plants for forcing; varieties for forcing; the routine of culture; Strawberries in the open ground; prolonging the season; culture after planting out; alpine or small kinds; and last, but which proved the most interesting, Strawberries as annuals or yearlings. Great stress was laid upon the

that it was most desirable that plants should be grown purposely for runners and not allowed to fruit. As to varieties for forcing Royal Sovereign was recommended for early supplies, to be followed by *Vicomtesse Hélicart de Thury*, *La Grosse Sucrée*, and *President* for late use, while for the "annual" system of culture Royal Sovereign, *President*, *Dr. Hogg*, and *Guntton Park* were advised. The discussion which followed brought out several points of interest. Those taking part were the president, Messrs. Fry, Powell, Judd, Exler, Hinton, Turnham, Townsend, Gibson, and Tunbridge. For the reason stated above the exhibits were smaller and less numerous than usual, but the certificate of cultural merit was awarded to four especially fine fruits of Sutton's Royal Jubilee Melon, staged by Mr. G. Herridge.



The Gardens, St. Peter's Hill, Caversham. Mr. Durrant, The Gardens, Preston, exhibited a plant of *Begonia* with yellow flowers. A hearty vote of thanks was accorded to Mr. Wythes and the exhibitors. Seven new members were elected.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 80, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Names of plants.—W. P.—1, *Polemonium coruleum*; 2, *Sedum spectabile*; 3, probably *Pulmonaria montana*; 4, *Centaurea montana*; 5, *Aster Novi-Belgii* var. *laevigatus*; 6, *Centranthus ruber*; 7, *Tanacetum vulgare*; 8, *Chrysanthemum uliginosum*; 9, *Aster Robert Parker*.—F. Y.—1, *Pilea muscosa*; 2, *Selaginella Martensii*; 3, *Davallia filifolia* plumosa; 4, impossible to name positively from an immature frond; it may be *Polypodium Billiardieri*; 5, *Filix mas*; 6, *Polypodium pustulatum*; 7, *Pteris cretica albo-lineata*; 8, *Pteris serrulata cristata*.—J. M. D.—*Ophiopogon Jaburan* variegata.

Carnations (FIORE).—1. Stages for Carnations.—The best are those made of wooden laths, painted and open. 2. Temperature.—In winter for both *Malmalson* and *Tree Carnations* 55° as a minimum; except in severe frosts it might fall to 50°. If the *Malmalsons* are not to be forced merely keep the frost out. 3. *Picotees*.—These will flower about the middle of July if grown under glass. They would require a little forcing in Scotland.

Various questions (K.).—1. The less a *Gloire de Dijon* Rose is pruned the greater will be the yield of blossoms. The best results are obtained when pruning is limited to the removal of any old and exhausted shoots, and the long ones retained in their entirety. If planted against a wall or in any similar position this is easily done, and the same may be said if it is grown in bush form, while the most satisfactory way of treating a standard is to bend over these long shoots and tie them to the stem of the plant. So treated they will grow and flower from nearly every eye next summer. 2. The *Clematis* will in all probability partially die back in the winter, and all the cutting needed will be the removal of any dead shoots. 3. If the leaves of the Sea Kale Beet are gathered early others will be produced, but not to the same extent as at first. 4. The best time to plant *Ampelopsis Velchii* in your climate is in early spring before the buds push forth their new growth.

Pruning of Clematis Angelina and C. Mme. Edouard André (G. L. S. C.).—*Clematis* Mme.

Edouard André belongs to the Jackmanni section, and should therefore be cut back each spring close to the old wood. We cannot find the name of *Clematis Angelina* mentioned in any list; probably it is a very old sort that has gone out of cultivation, or the name may have been misread on an old label. From the description of it we should say that it requires the same treatment as Mme. E. André. As they are getting very tall and thin at the base they should be cut back in the early spring, not autumn, taking care to avoid cutting too hard back into the very old wood, or they will not start strongly again. When they have well started, a good top-dressing of manure should be given them. Generally speaking these *Clematis* that flower on the young wood and require cutting back each spring flower during July and August, while those that flower on the old wood bloom earlier in the year, between April and June.

Garden wall to cover with fruit trees (BALBUS).—Plums will succeed excellently on such a wall; Dessert Cherries also, and some varieties of Pears. We advise trained trees to be planted. Dessert Plums: Dennistons Superb Gage, Green Gage, Guthrie's Late Gage, Reine Claude de Bavay, Purple Gage, Transparent Golden, Jefferson's, Ickworth Impératrice, Kirke's, Coe's Golden Drop, Bryanston's Green Gage, and President, a new large purple Plum of great excellence. This is classed as a cooking Plum, but when grown on a wall it is good for dessert. Dessert Cherries (twelve): Frogmore Early Bigarreau, Early Red Bigarreau, Belle d'Orléans, Bigarreau Napoleon, Elton, Governor Wood, May Duke, Early Purple Gean, Bigarreau Jaboulay, White Heart, The Noble, and Black Eagle. Dessert Pears: Jargonelle, Williams' Bon Chrétien, Fondante d'Automne, Mme. Treve, Marie Louise, Louise Bonne de Jersey, Beurré Hardy, Doyenne du Comice, Glou Morceau, Thompson's Le Lectier, Nouvelle Fulvie, Josephine de Malines, Bergamotte d'Espérance, Easter Beurré, and Mme. Millet. The above Pears are arranged in the order of ripening.

Rust on Chrysanthemum foliage (JIM).—We have very carefully inspected the leaves of the *Chrysanthemum* that you sent to us, and regret to find, as you suspect, that they are attacked by the fungoid disease more commonly known as the *Chrysanthemum* rust. Mr. Massee of Kew attributes this pest to overcrowding, and if this is not so in your case the plants probably came to you with the disease upon them in the spring or when you acquired them. You had better isolate the infested plants and burn them, as the disease so quickly and easily perpetuates itself. The remaining plants in your collection should be sprayed with sulphide of potassium, mixing half an ounce of the latter in a gallon of clear water. Do not confound this remedy with sulphate of potassium, as is sometimes done by mistake. After flowering your plants should be cut down, and all the old wood and foliage burnt. The green leaf of the young growths should then be sprayed with the same solution. The glass house in which the plants are staged should also be sprayed with sulphate of iron when the plants have been removed. This drastic treatment is necessary, and is the only means of ridding your plants of the pest.

TRADE NOTES.

GARDEN ORNAMENT.

UNDER the title of "Garden Ornament" a well-nigh endless array of objects is comprehended—temples, pagodas, summer houses, bridges, roseries, pergolas, arches, fountains, seats, and sundials, ancient and modern art have been requisitioned, and almost every country laid under tribute to secure something new. We here present two pictures

of distinctly novel structures which appear to be very much in advance of ordinary summer houses. No. 1 (styled a "Resiance") provides amply on the ground floor and also on the balcony floor for social functions. Round the interior of the ground floor apartment there may be an annular water tank for fresh water or marine specimens. The main feature of this form of aquarium is that it affords the fish an endless swim. In the "Resiance" (No. 1) if with aquarium, admission is obtained by descending steps outside passage below tank, and ascending steps inside, the view of the aquarium being taken from the inner side of the annular tank. The ground floor chamber is also well adapted for a fernery. The balcony chamber is made to revolve upon a central perpendicular column. Thus it may be moved to keep its open side towards the sun (for sun bathing) or for viewing different prospects under varying conditions of light and shade. An astronomical telescope may be conveniently mounted in this chamber for night observations, without undue exposure. A "Resiance" of this description, surrounded with its circular pergola clothed with climbing

Roses and Ramblers, is a very charming retreat, and, when judiciously located, a very picturesque adjunct. The "Resiance" (Ladies' Bijou Summer House) is on a smaller scale, and may be either open or enclosed with canopy and curtains of suitable material. The floor being raised above ground is a valuable preventive of cold when the soil is damp. These new introductions (with others for similar use) emanate from the well-known firm of William Wood and Son, Limited, horticultural specialists to His Majesty, Wood Green, London.

MR. J. AMBROSE.

MR. AMBROSE, having resigned his position with Messrs. Paul and Son, The Old Nurseries, Chessington, in whose service he has been for twenty-nine years, is now commencing business on his own account as a nurseryman, seed, plant, and bulb merchant. Having had a long and varied experience, Mr. Ambrose will be glad to advise ladies and gentlemen who are laying out new gardens. Mr. Ambrose informs us that he has acquired the stock of Mr. Kingier's new Grape Melton Constable, the result of a cross between Gros Colmar and Lady Hastings.

VALL'S BEETLECUITE IN THE GARDEN.

MOST cultivators of plants and fruit under glass or against warm walls at some time or other have had to contend with ants, beetles, cockroaches, &c., and know how difficult they are to exterminate, especially when they locate themselves under hot-water pipes in mains leading from the boiler. In this case the tropical ant is a serious foe, as they often carry soil into positions and percolate into many things growing in pots. Added to this, I am inclined to believe that they carry many insects about, causing much trouble by introducing them on fresh things. Bad as this is, it is worse where they find a lodging near Peach houses, and it is no uncommon thing to see questions in THE GARDEN how to get rid of them from Peach houses when in bloom, as they destroy the reproductive organs and prevent the fruit from setting. Some years ago I had much trouble in this way, and sprinkled guano in the runs. Another temporary remedy was putting fresh meat bones down, and when the ants were on them to dip the bones in hot water. Soot, lime, and a host of other things have been recommended. I have never found anything effectual till this season, when I obtained a supply of Vall's Beetlecuite. I had some fine Peaches and Nectarines. When the wasps had made a hole or a slight crack in the fruit, then the ants followed on and did much damage, or when the fruit was very ripe they would attack them. But the worst thing was the damage they did to some choice Gage Plums. When Beetlecuite came to hand this was used according to instructions given on the tin, namely, to sprinkle it in the ants' runs. This was done two nights following, with the result that they all disappeared and caused no further trouble to the fruit. I have never seen anything approaching it in results. Added to this, it is so clean, causes no smell, and is harmless to animals. Those who are troubled with ants eating fruit or warm, dry, open walls should use it, and by keeping it in a dry place it is always ready for use. In many places cockroaches and beetles are troublesome. Here, again, it can be used. Frequently these have to be contended with in kitchens, &c., so that a box of this is always useful and should be kept with other things for garden use. I am glad to give my testimony to its beneficial effect.—JOHN COWE, Fords Abbey, Chard.

CATALOGUES RECEIVED.

Hardy American Plants.—Messrs. Kelsey, Boston, Mass., U.S.A.

Roses.—Mr. Charles Turner, Royal Nurseries, Slough.
Hardy Plants.—Mr. Amos Perry, Winchmore Hill, S.
Novelties.—M. Herb, Naples, Italy.

GARDENING APPOINTMENT.

LORD ROSEBURY'S NEW GARDENER.

MR. JAMES MACGREGOR, head gardener to the Duke of



Atholl, Dunkeld House, Dunkeld, Perth, has been appointed to take charge of Lord Rosebury's gardens at Mentmore, the position rendered vacant through the death of Mr. James Smith.

* * * The Yearly Subscription to THE GARDEN is: *Inner*, 10s.; *Foreign*, 17s. 6d.

THE GARDEN

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[OCTOBER 31, 1903.]

PRUNING ROSES.

ROSE pruning is always an important and often a little-understood matter among amateur growers, and it is not surprising that a large audience assembled to hear the lecture given by M. Viviand Morel before the Royal Horticultural Society on Tuesday last. As M. Morel's remarks were the result of observations upon Rose culture in France, and also in many cases applied to Roses upon their own roots, instead of budded upon other stocks, they cannot be put into practice in this country without some consideration of our different climatic conditions. Nevertheless, some of M. Morel's remarks could not fail to be of value to those who heard them, if only by way of suggesting new methods that may or may not prove to be worth retaining.

M. Morel considered semi-dwarf bushes to be the best form of all; suckers were then not troublesome, the stems become woody, and the plants live to a good age. Splendid specimens of Teas and Noisettes might be grown in this form. Natural bushes were also recommended, but all varieties are not equally suitable, and from the point of view of most Rose growers it is a serious drawback to learn that four or five years are required to form a good specimen. M. Morel had a good word to say for weeping Roses; these he strongly recommended. Those varieties with long, pliant shoots should be chosen: Teas and Noisettes made excellent weeping Roses. Aimée Vibert, William Allen Richardson, Gloire de Dijon, and Reine Marie Henriette were mentioned as being particularly suitable for this purpose. They should be budded on the Briar stock some 2 mètres from the ground, and great care in planting is necessary. Budding is done in August, and in spring the shoots are pinched when about 15 centimetres long. They are then left untouched for the remainder of the season. In the following spring the shoots are thinned out to about a dozen, and the third year they are trained to a hoop so as to produce a head of the desired form. M. Morel said that the time of year for pruning Roses depends upon, firstly, the species or variety to be pruned; secondly, the object in view; and, thirdly, the climate. The non-Perpetual Roses, as Provence, Damask, &c., should be pruned after flowering in July, and again in February or March. The Perpetuals, as Teas, Noisettes, Hybrid Teas, &c., are generally pruned from February to March in the colder parts of France.

Around Lyons many of the Hybrid Perpetuals are pruned in August, covered with frames so as to encourage growth, and the plants bloom again in November.

One of the advantages of Rose pruning is that it enables the worker either to retard or advance the time of flowering, the Roses first pruned will, in the absence of unusual conditions, be the first to bloom.

Autumn-pruned Roses flower before those pruned in spring; this cannot, however, be safely practised on Roses grown out of doors in England on account of our late spring frosts, which would almost certainly cripple the young growths.

M. Morel described a large bed of Roses in his garden kept in almost perpetual bloom by adopting the following method of pruning. The plants forming the outside row of the bed were pruned close to the ground, those in the next row were pruned less closely, and so on with each row until the plants in the centre of the bed were reached; upon these one or two shoots were left unpruned, and simply bent down to the height of those in the highest row. Thus the Roses in the centre flowered first, and were followed in succession by the other rows, the outside plants that were cut down almost to the ground being the last to bloom. M. Morel mentioned that a succession of bloom might be obtained from a single plant by following the same method of treatment.

KEW NOTES.

TWO LATE-FLOWERING SAXIFRAGAS.

ALTHOUGH an extensive family with a wide distribution, this genus does not exhibit much variation in the time of flowering of the different species, most of which bloom in the spring. The two following are exceptions to the general rule, and do not produce their flowers till the autumn, thus helping to prolong the flowering season in a dull time when most things are decaying.

S. Fortunei.—A pretty half-hardy perennial with large panicles of white flowers borne on stout reddish stems, which rise in profusion from rosettes of green leaves. These leaves are reniform cordate in shape, lobed and laciniately toothed. The flowers are peculiar on account of the unequal length of the narrow petals, some being two or three times the length of the others. Some of the petals are also irregularly toothed. A native of China, it was introduced into cultivation in 1863.

S. cortusaeifolia.—Somewhat similar to the above, with rather smaller flowers and entire petals. The branches of the panicle are more slender, and, with the leaves, are more or less covered with coarse cellular hairs. Of the two this is the more floriferous, but both are desirable

plants. Seeds of this species were collected on the central mountains of Japan in 1880 by Mr. Mariée, who sent it to Messrs. Veitch, in whose nursery it flowered in 1883. Also a native of China, it is found in the province of Yunnan growing on rocks at an elevation of 6,000 feet above sea level.

COLCHICUM PROCURENS.

This useful little plant, with flowers somewhat similar to those of the common Meadow Saffron *C. autumnale*, but rather smaller in size, is now in full beauty, doing its best to brighten the rock garden or border, and extending the period during which we are indebted to members of this genus for an autumn display. It was introduced from Asia Minor, where it grows in the neighbourhood of Smyrna several years ago under the name of *Merendera sobolifera*, the corms of which have the same branching form but differ from it in time of blooming, the *Merendera* being a spring-flowering plant, its leaves appearing concurrently with the flowers. It is also offered this year by Continental nurserymen under the name of *C. montanum*, the well-known spring-flowering species.

ARTEMISIA LACTIFLORA.

This genus does not contain many ornamental plants amongst the stronger-growing section, those finding most favour belonging to the smaller silvery-leaved alpine species. The above species, however, is an exception to the general rule, being quite a handsome plant, with its loosely branching stems attaining a height of 6 feet or 7 feet, terminating in large compound panicles of white flowers not unlike a giant *Spiraea* in appearance. Without the strong smell which is characteristic of many members of this family, its leaves are somewhat like those of our native Mugwort *A. vulgaris*, to which species it is evidently wrongly referred to as a synonym in the "Index Kewensis." The leaves, however, are much thinner in texture and without the white tomentum on the under side of the leaf, while the flowers and inflorescence are quite distinct from those of that species. Dr. Henry, who found it in the province of Hupeh in China, says that it grows in very moist places, generally on the margins of streams. The present plant was raised from seeds collected by Messrs. James Veitch and Son's collector, Mr. H. Wilson, in Western China, and its late-flowering habit should make it a useful plant for grouping near water for autumn effect.

W. IRVING.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 2.—Truro Chrysanthemum Show (two days).

November 3.—Southampton (two days) and West of England (two days) Horticultural Shows.

November 4.—Highgate (three days), Kent County (two days), Cardiff (two days), Hereford (two days), Ascot (two days), and Northampton (two days) Horticultural Shows.

November 9.—St. Neots Chrysanthemum Show.

November 10.—Royal Horticultural Society's Drill Hall Meeting; meeting of committees at 12 noon; lecture upon merit and demerit of size in flowers, fruits, and vegetables; National Chrysanthemum

themum Society's Exhibition at the Crystal Palace (three days); Devizes and Oxford Chrysanthemum Shows.

November 11.—Buxton, Reading, Liverpool (two days), Hampton, Winchester (two days), and Banbury (two days) Chrysanthemum Shows; East Anglian Horticultural Club Meeting.

November 13.—Blackburn (two days), Leicester (two days), Sheffield (two days), and Leeds Paxton (two days) Chrysanthemum Shows.

A National Potato Society.—I was pleased to read in *THE GARDEN* last week that an effort is being made to form a National Potato Society, which, if carried out on the lines suggested, would be of great practical value to cultivators and to the public generally. Trials conducted in various parts of the country would not only be a test of varieties, but would enable growers to discover those sorts best suited for that particular locality; also a great show annually in London of such an important subject as the Potato would greatly increase the interest in its cultivation. Those of us who from year to year visited and exhibited at the old International Potato show gained many an object-lesson.—J. H. RIDGEWELL, *The Gardens, near Histon, Cambridge.*

National Chrysanthemum Society's catalogue.—We have received the supplement to the Jubilee edition of this catalogue. It contains selected lists of the best Chrysanthemums of all types, viz., incurved, Japanese, Japanese incurved, Japanese hairy, reflexed, large Anemone, Japanese Anemone, Pompons, Pompon Anemones, singles, earlies, epidermy, plumed, feathery, fantastic, decorative, and market. The colour of each variety is given. There is also an alphabetical list of new Chrysanthemums raised and sent out since the spring of 1898.

Linnean Society—Opening of the session.—The papers to be read at the first meeting of the session 1903-4 on Thursday next, at 8 p.m., will be the following:—"The Structure of the Leaves of the Bracken (*Pteris aquilina*) in Relation to Environment," by Mr. L. A. Boodle, F.L.S.; "On the Life History of a new Monophlebous from India, with a Note on that of a *Vedalia* predaceous upon it, with Remarks on the Monophlebinae of the Indian Region," by Mr. E. P. Stebbing, F.L.S., F.E.S. Exhibitions:—The frontal bones of a horse, showing a pair of rudimentary horns, by Dr. W. G. Ride-wood, F.L.S.; Preparations and slides illustrating the occurrence of *Mycorhiza* in Coal-Measure plants, by Professor F. E. Weiss, B.Sc., F.L.S.; Photographs illustrating the pollination of flowers, by Mr. B. H. Bentley, F.L.S. The chair will be taken at eight o'clock.

Presentation to Mr. Latham.—Personal friends to the number of upwards of sixty attended a complimentary dinner given to Mr. Latham at the Colonnade Hotel on the evening of the 22nd inst., when he was the recipient of a beautifully illuminated address and a purse of gold on his retirement from the Birmingham Botanical Gardens after a service of thirty years. The chair was taken by an old friend, Mr. Owen Thomas, V.M.H., who was supported on his right by the guest of the evening and Mr. Humphreys, the new curator, and on his left by E. Martineau, Esq., and Professor Hillhouse. Mr. Martineau, a city councillor, had known Mr. Latham all his life, and in presenting him with the address and purse of gold, bore eloquent testimony to Mr. Latham's personal worth, and mentioned the way he had endeared himself to all with whom he came in contact by his unassuming manner and courteous and kindly ways. He mentioned the many-sidedness of his character as an expert gardener, botanist, hybridist, and of his love and knowledge of British plants, and Ferns more especially. Professor Hillhouse, who had been associated with Mr. Latham in the management of the garden as honorary secretary for twenty-one years, also spoke in kindly and eulogistic terms of Mr. Latham's services to horticulture at the gardens, as well as in connexion with the Gardeners' Mutual Improvement Society and the great autumn fruit and Chrysanthemum show and other societies in

the neighbourhood of Birmingham. Others present spoke in the same terms of Mr. Latham's worth as a friend, always on the look out for an opportunity of doing a kind action or saying a kind word to those he came in contact with. A pleasant illustration of this side of his character was instanced by a letter the chairman had received from the head of the Parks Department of the City of Boston, America, which he read to the meeting. He had been Mr. Latham's pupil many years ago in the North of England. The letter is worth reproducing as indicating faithfully the spirit which has actuated Mr. Latham throughout his life in dealing with those with whom he has come in contact. Many are those now filling honourable and good positions in the gardening world who owe their success entirely to his kindness and encouragement: "Dear Sir,—I learn from the English horticultural papers that it is proposed to give a complimentary dinner and testimonial to Mr. W. B. Latham, in recognition of his long and valuable services to horticulture and as a tribute to his fine personal qualities. I am most heartily in sympathy with this movement to do honour to Mr. Latham. It is about forty years since I last saw him, yet I have never forgotten when, as a raw garden lad, I was led by his enthusiasm and by his kindly interest in me to feel that there was something more in gardening than the drudgery I had hitherto found. By making me his occasional companion on botanical excursions he awoke in me a love for the wild plants of the woods and fields. Since then, in renewing and extending their acquaintance, some of the pleasantest hours of my life have been spent. Thus a feeling of gratitude is mingled with my desire to see Mr. Latham honoured, and I hope that he will yet long enjoy the esteem and good wishes of his many friends.—Yours sincerely, J. A. PETTIGREW." Mr. Latham expressed his acknowledgments in very feeling terms to all his friends for their kindness. An excellent programme of music was provided, and a thoroughly enjoyable evening spent.

Four Sweet Peas, 1903.—Of all Sweet Peas of recent date I need hardly mention Dorothy Eckford, which was seen this year, despite all the wet and frost, quite fulfilling everything one could expect. Agnes Johnstone, a very lovely variety and strong grower, was rather spoilt by wet, but next season it ought to stand well. Lord Rosebery, a Pea of 1902, did well, and is worth growing. Mrs. W. Wright, a grand and most beautiful variety, but hardly substantiated yet, and apt to sport in a bad year, should make a mark in 1904. Of full giant size and of exquisite colouring, it has hardly been seen on the exhibition table; but I am sure all who try the same in the coming spring will be most pleased with the result.—CHARLES WILLIAM CROSBY, *Dorking.*

The Lady Warwick College.—On Saturday, October 24, the first council meeting was held at the new home of the college, Studley Castle, near Birmingham, and the college formally opened. The Countess of Warwick presided, and was supported by Lord Coventry, Lord and Lady Hertford, and others. Studley Castle, with its well wooded gardens and grounds and extensive farm lands, is much more suitable to the needs of the college than were the hostels at Reading. There are now some forty students, who appear thoroughly to enjoy their new home. There is scope at Studley for the very best gardening, and Lady Warwick and the college authorities are to be congratulated upon the acquisition of such a delightful estate. A full report of the meeting, &c., appears elsewhere.

Slaughter of British birds.—It is distressing to find that the slaughter of British birds continues with unabated energy, in spite of close seasons and Acts of Parliament. A bird-seller in Shaftesbury Avenue, London, was recently fined 40s. and costs for keeping sixty linnets in a cage measuring about 12 inches by 9 inches by 6 inches, four of the birds being found dead, two with legs broken, and most of the others in a dazed condition. The case is a revelation for thousands of people who live in the country, especially in those districts within a twenty-mile radius of London,

who are mourning the steady decrease in number of all sorts of wild birds and the threatened annihilation of many species. The county council should wake up to a sense of their duties. As the Duke of Bedford pointed out in his last address to the Society for the Protection of Birds: "Unless the county councils utilise their powers of all-the-year-round protection, and the police enforce the law, bird-catchers will continue to pursue their trade with profit to themselves." Without the active support of these local bodies the work of the society's watchers is almost useless.

Mr. Robert Sydenham.—It is a great pleasure to hear from this well-known horticulturist that the journey to Cape Town has completely restored his health. Mr. Sydenham returns shortly to Birmingham.

Lilium auratum at Chorley Wood. Mrs. Gilliat, Chorley Wood Cedars, Rickmansworth, writes: "A *Lilium auratum* planted at the edge of a small clump of Rhododendrons is now flowering (September 28) for the second season and bearing thirty-four magnificent blooms on one stalk."

Culture of hardy tree and bush fruits.—Mr. E. Kemp Toogood, F.L.S., of Southampton is the author of this booklet, which contains plain and practical information upon an important subject. There are chapters upon grafting, pruning, diseases, tree surgery, and spraying, in addition to cultural notes, and many useful illustrations are given throughout the book.

Continental Chrysanthemum shows.—The following are announced for November: Paris, 4th to 11th; Lille, 6th to 9th; Fontainebleau, 7th, 8th, and 9th; Bordeaux, 5th to 12th; Troyes, 6th to 9th; Orléans, 12th to 17th; Toulouse, 12th to 16th; Blois, 5th to 8th; Chaumont, 14th to 16th; Valenciennes, 14th; Pau, 7th to 9th; Geneva, October 29 to November 1; Cologne, 6th to 13th.

The recent gardeners' dinner.—Mr. A. Dean, the hon. secretary, writes: "Kindly permit me to trespass once more on your space to mention that at a meeting of the dinner committee held at the Horticultural Club on Tuesday last a financial statement was presented, showing that the income reached £121 15s. and the expenditure £109 10s. 1d.; that left as balance in the hands of the treasurer the sum of £12 4s. 11d. That amount it was agreed should be given as donations—to the Gardeners' Benevolent Fund £8 2s. and £4 to the Orphan Fund, the committee subscribing the deficiency. The work of the promoters was absolutely voluntary. Very cordial votes of thanks were given to the Horticultural Club for kindly accommodation, to Leopold de Rothschild, Esq., for his munificent liberality, to Viscount De-cannon for so genially presiding at the dinner, to Messrs. James Veitch and Sons for their splendid table decorations, to the Horticultural Press for many kind notices, and to the officers. A sample picture of the dinner, taken by flashlight by Fradelle and Young, was regarded by all as presenting a splendid pictorial memento of a singularly interesting gathering."

Aberdeen Royal Horticultural Society.—The annual business meeting of the Royal Horticultural Society of Aberdeen was held in that city on the 19th inst., and was presided over by the Earl of Aberdeen. The report of the treasurer was not of such a favourable nature as in former years, there being an adverse balance of £79 11s. 9d. on the year's working. This was mainly due to a reduction in the number of the members and in the attendance at the show. The Earl of Aberdeen was re-elected chairman and Mr. J. Leith vice-chairman. Mr. J. B. Rennot, Union Street, was also reappointed secretary and treasurer, and the following gentlemen were elected as acting directors:—Professional gardeners: Messrs. A. Duncan, J. M'Kay, S. Robertson, and J. Sim. Market gardeners: Messrs. W. Anderson, A. Paterson, J. Paterson, and J. Smith. Nurserymen and florists: Messrs. W. Adam, A. M. Cocker, W. Cumming, and W. A. Dustan. Amateurs: Messrs. A. Gillespie, J. Lennie, G. Maitland, and D. Simpson. Working classes: Messrs. A. Begg, J. Duncan, J. M'Laren, and W. Taggart.

Heliopsis laevis and B. Ladhams.—I cannot agree with recent notes which have appeared in praise of H. B. Ladhams, and I see nothing of the grace of form of which Mr. Molyneux writes. Side by side with the older *H. laevis*, the newer form is decidedly coarser. Soil and situation may make a difference, of course, but as grown here I infinitely prefer *H. laevis*, though both have grown well enough. If I had to discard one or the other it certainly would not be the last-named.—J. C. T., *Shipley Hall Gardens*.

Marigolds in pots.—Some plants of African and also of the striped French Marigolds now in full bloom in my cold house are the admiration of all who see them. They were late seedlings, and, as they were not likely to get into bloom until the frost came, I put them into 6-inch pots, which they have filled with roots and are blooming with remarkable freedom. The stiff, rigid, and erect character of the African Marigold renders them best adapted for pot culture. They are about 3 feet in height. The French striped varieties make large bushes, but the weight of the blooms cause the stems to bend down. A few plants of the orange African Marigold would go well with *Chrysanthemums* in a conservatory.

Angelonia grandiflora alba.—What I recently saw growing at the Norfolk nurseries of Messrs. Hobbies and Co., Dereham, under the above name is a white-flowered form of the South American *Angelonia grandiflora*, a pretty stove herbaceous perennial of easy cultivation. I find in the catalogue of Mr. E. Benary a *grandiflora* (lilac) and the pure white form which has been obtained by Mr. Benary. The white form makes a graceful greenhouse plant, and it is one of those subjects an amateur on the look out for novelties would find it satisfying to cultivate. There are a few species or sub-species forming the genus, but the new large-flowered white form appears to be the best.—R. D.

Bonninghausenia albiflora.—Although in cultivation in 1832 when a figure was published in "Hooker's Exotic Flora" under the name of *Ruta albiflora*, this plant is comparatively rare in gardens. At the present time (in mid-October) it is in full beauty with its light graceful habit and numerous small white flowers. It is a monotypic genus closely allied to the common Rue, distributed over the temperate Himalayas from Marri to Sikkim, common in China, and also found on the central mountains of Japan. It is a perennial herb attaining the height of 3 feet or more, with bipinnate glaucous alternate leaves and flowers in compound terminal leafy panicle cymes. The individual flowers are small, a quarter of an inch to half an inch in diameter, but this is compensated for by the great number produced. Perfectly hardy in suitable positions, which should be in partial shade, as it is an inhabitant of woods, it is a plant worthy of more extended cultivation. The crushed leaves have a strong disagreeable smell, and the late Colonel Sir Henry Collet states in his "Flora of Simla" that the plant is known among the hillmen as "Pissu mar," the flea killer.—W. LIVING.

A new Lettuce—The Staghorn.—Those who saw the splendid exhibit of Lettuces at Westminster on the 15th ult. from Messrs. Dickson and Robinson of Manchester will remember that some of the sorts staged were both novel and good. In particular the Staghorn was a distinct Cabbage variety, and well worth special notice. This variety was also staged at the recent Chiswick show, but not in the best possible position, as with so many exhibits it is difficult to see all. Though on this occasion the Staghorn received an award of merit it will certainly be worth a higher award if it is as hardy as it appears to be. In appearance it is not unlike an Endive, and the leaves, being much cut, will make it the more valuable for the salad bowl. The plants heart freely, and are by no means coarse; indeed, this Lettuce may be termed shapely, and the quality is excellent, not unlike a well-grown Green Curled Endive, but not so bitter. In my opinion the Staghorn will be largely grown in private gardens as a salad, both for its good quality and appearance. Other new sorts were worth notice, but none were so distinct as the Staghorn. Of excellent quality was the new

Lord Kitchener, a Cabbage variety of very compact growth and of splendid quality. I consider that this and the one noted above are excellent additions.—G. WYTHES.

Cockscomb Glasgow prize.—Replying to "A. P. H." (page 246, October 10), who asks by whom the strain of Glasgow Prize Cockscomb was originated, I believe Mr. A. McLachlan, gardener to Mr. C. S. Caird of Dungourly, near Greenock, was the recognised introducer, and it was in the eighties (and before) known in Glasgow and the West of Scotland as McLachlan's Glasgow Prize Cockscomb. Combs of 36 inches to 39 inches, tip to tip, were often staged at the Glasgow flower show, and of fine colour and form as well.—A. HOPE, *Exeter*.

Midlothian Potato inspection.—A very interesting inspection of the Potatoes grown in the neighbourhood of Hawthornden, Midlothian, for Mr. Thomas W. Scarlett of Edinburgh, took place on the 10th inst., when a party of about sixty took advantage of Mr. Scarlett's kind invitation, going by rail to Hawthornden Station, and proceeding to two of the farms. The members of the party were much interested in the results obtained, there being, as a rule, an increase in the crop over last year, while there was less disease visible than was expected. The party had also an opportunity of seeing specimens from the crops growing on other farms for Mr. Scarlett, which were displayed in a hall, while boiled Potatoes were also provided to test the cooking qualities. Mr. Davie, of Messrs. Davie and Co., of Haddington, thanked Mr. Scarlett on behalf of the company for his kindness, and Mr. Scarlett briefly replied.—S. ARNOTT.

Rhus cotinoides in autumn.—Among other things the year 1903 will be remembered as one in which the autumn tints of trees and shrubs were conspicuously absent. A walk through a park or garden now will reveal none of the lovely tints, whose colour descriptions a pen cannot usually adequately convey, that make autumn the favourite season of many. All around the leaves of both forest trees and garden shrubs are hardly less green than in summer time. Less attractive they certainly are, for while the autumnal tints have not developed, the green has everywhere lost its freshness, and in some cases has turned to a dull and dirty brown. So they will remain until the first frost brings them fluttering to the ground. Surrounded by such a monotone of colour it is pleasant to turn to a plant which, even in this unparalleled season, can still burst forth in its full autumn beauty, namely, *Rhus cotinoides*, the Chittam Wood of Southern United States. It makes a brilliant bit of colour in an otherwise dull and sombre shrubbery. Some of the leaves are rich yellow, others are margined with red, while most are margined and veined with a delightful blending of all their colours. A plant some 12 feet high is a striking object at this season, and in Kew Gardens there are several such.

Cyphomandra fragrans.—The Tree Tomato (*Cyphomandra betacea*) is occasionally referred to in THE GARDEN, but to judge from the scarcity of notes concerning another species, *C. fragrans*, this is not nearly so well known. To some extent probably this is accounted for by its not fruiting under cultivation in this country as *C. betacea* does. Repeated attempts have been made to fertilise the flowers, and also to cross-fertilise them with the Tree Tomato, but so far no successful result has been recorded. Notwithstanding the non-production of fruit, *C. fragrans* is a plant that is well worth space in a large greenhouse or conservatory. It needs to be planted in a border, for, like *C. betacea*, it makes vigorous growth. The leathery leaves are ovate-lanceolate in shape, rich dark green above, and pale green below. The curious drooping flowers which are freely produced are perhaps best described as inverted urn-shaped. The perianth segments recurve at the end, and are violet-coloured. The flowers possess a distinct and pleasing scent. Although when young their colour is violet, with age they become dull yellow. There is a plant in the temperate house at Kew some 12 feet or more high, forming, in fact, a large bush. The long vigorous shoots are pruned hard

back annually; in fact, the cultural treatment advised on several occasions in THE GARDEN suite *C. fragrans* also.

The Sea Buckthorn as a tree.—Near the large temperate house in the Royal Gardens, Kew, there is a specimen of the Sea Buckthorn (*Hippophae rhamnoides*) growing at the end of a shrubby border that may rightly be termed a tree. It is of symmetrical, pyramidal shape, and from 12 feet to 15 feet high. At the present time it is as attractive as anything in the Kew collections. The pretty grey leaves alone assure the Hippophae a pleasing appearance, but with the bright orange-coloured berries clustering thickly around the shoots as they do now the tree referred to makes a charming picture. Grey leaves and orange berries intermingle from top to base, for this untoward year has, curiously enough, been favourable to the Sea Buckthorn so far as the production of fruit is concerned. The stem of this Tree Hippophae is about 7 inches in diameter, and the branches reach almost to the ground. As a tree it is unique. The value of Hippophae rhamnoides as a bush is well known, and now its value in the garden can be fully appreciated. There are several clumps at Kew by the lakeside and elsewhere that are aglow with clusters of the brilliant orange-coloured fruits, and they make rare bits of colour in the garden landscape, more than ever appreciated now that sombre tints predominate in border and shrubbery. Because the Sea Buckthorn is a seaside plant many have the idea that it will not grow inland. Such a fallacy should at once be dispelled, and a visit to Kew would be an excellent means to this end. It does not even require to be near water at all, as is evidenced by the tree specimen just mentioned, which is growing in ordinary soil, far away from lake or pond. Berried shrubs are of great value to the gardener, and they are not taken advantage of to the extent they might be.—A. P. H.

Some new Roses.—M. A. Schwartz, 238, Grande Rue de Monplaisir, Lyon, announces some new Roses obtained from seed sown in the nursery, and which will be placed on the market on November 1 next. *Tea Rose Mme. Berthe de Bary de Zahony*, habit vigorous, foliage purplish green, flowers large, full, opening well, colour a fine nankeen yellow shaded with salmon and coppery orange; fine variety. *Hybrid Tea Rose Chateau de Flechères*, habit vigorous, foliage light green tinged with purple, flowers large, full, colour nankeen yellow, turning to straw colour in the early flowers, creamy white with nankeen yellow centre in autumn; very free flowering. *Comte de Wallis*, habit vigorous, foliage brilliant dark green, flowers large, full, well shaped and opening well, petals imbricated, colour light flesh tinted and bordered with bright pink, centre a whitish flesh colour tinged with salmon, reverse of the petals pink, shaded and striped with carmine; fine variety. *Hybrid Bengal Rose M. Pétrus Donzel*, vigorous, bushy, foliage light green, flower medium sized, full, colour velvety purplish crimson tinged with bright red; very free flowering and sweet scented.

Roses in 1903.—I regret to say that I am unable to echo Mr. Arthur Goodwin's remark that "Roses have come out of the ordeal of the past season very well," for with me they have proved most disappointing. In the light, stony soil at the mouth of the River Dart neither of Mr. Goodwin's favourites, *Narcissi* and *Roses*, are satisfactory. This is doubtless chiefly owing to the nature of the soil, though in addition to this the *Narcissus* fly does a great deal of damage to the first. Being convinced that success with Hybrid Perpetuals was not to be dreamt of, I confined my selection almost entirely to *Chinas* and *Teas*, and procured a few plants of *Irene Watts*, *Queen Mab*, *Laurette Messimy*, *Mme. Eugene Reesal*, *Souvenir de Catherine Guillot*, *Corallina*, *G. Nabonnand*, *Camoens*, *Mme. Pernet Ducher*, *Beryl*, *Marquise de Salisbury*, *Bardou Job*, *Grüss an Teplitz*, and *Leonie Lamesch*, while two plants of *Caroline Testout* were sent to me gratis. The soil, which is about 2 feet deep, was richly manured previous to planting three seasons ago. The bushes stand 2 feet apart each way, and have been well mulched with farmyard manure

each autumn, while as the ground is merely a reserve garden nothing has been grown among the Roses. I fully expected that the unusual amount of moisture acting on the light soil would induce strong growth, but the result has been the exact opposite, the growths having been very weak and spindly and the flowers not a third of their proper size. Caroline Testout, the gratis Rose, has done well, and Grüss an Teplitz and Leonie Lamesch have been fairly good. The flowers of the last-named, though always small, are wonderful in their colouring, their rich crimson and orange on their first opening being, as far as I know, unique amongst Roses. With the exception of the three varieties named, I have not out a single fair-sized flower through the entire season, though after the first disappointment I severely disabbed. I shall give them another year's trial, after which, if the experience of this season is renewed, they will be cleared away and replaced either by more Caroline Testouts or by other flowers. I confess to being surprised at the failure, as I fully expected Chinaz, at least, would do well. I can only hope that the result was due to the season, though I own to grave doubts as to this being the case.—S. W. FITZHERBERT.

A new Strawberry—The Roydon.—In the bustle of a large show, such as the last great display at Chiswick, the best things are not always seen by the general public. This new variety was given an award of merit. Now any Strawberry, if at all presentable on September 29, must be valuable, and The Roydon, both as regards crop and quality, was excellent, and its late fruiting should make it an acquisition. Certainly the plants were splendid, bearing a grand crop of fruit, both ripe and in a green state, and the growth was stronger than is usual with the autumn or perpetual varieties, fruits larger, and of a deep crimson colour. I failed to get any notes as to its parentage, but doubtless the raiser, who is to be congratulated on such a valuable addition to the late Strawberries, will later on supply the particulars. Another point not to be lost sight of was that this late fruit was not grown in the north, but at Camberley, Surrey, and the flavour was excellent when the season is taken into account. The fruits were firm and the growth compact.—G. WYTHES.

THE LILIES.

(Continued from page 286.)

LILIUM AURATUM VAR. PICTUM (the painted auratum Lily) is a slender growing form, apparently a wilding, very beautifully coloured, representing a stepping stone in colour development toward the entirely red-banded *rubro-vittatum*. Bulbs small, narrow scales. Leaves and stems as in *auratum*. Flowers four to eight, the petals lance-shaped, undulating, banded crimson near the tips, yellowish below; often suffused pale crimson on either side of the crimson stripe in the upper half of the inner petals. The spotting is heavy, regular, and a richer crimson near the tips. Fairly common in cultivation.

Var. platyphyllum (the broad-leaved auratum Lily), also known as *macranthum*. A magnificent variety, often reaching a height of 10 feet, and we have known examples bearing twenty or more flowers 15 inches across. Bulbs as large as *Auratum*, the scales markedly broad and stout two or three outer ones enclosing the whole bulb in some cases; yellow, scarcely at all dotted. Stems 4 feet to 10 feet high, very stout, slightly glaucous, forming enormous masses of roots at their bases, and two to six bulbils amidst the masses. Leaves twice the width of *auratum*, generally six to ten, nerved; those nearest the inflorescence nearly oval, often curved and blistered. Flowers in a loose spike of three to ten or more, borne on stout foot-stalks of varying length, and generally slightly drooping.

Petals deeply keeled, the inner ones narrowly ovate, the outer lance-shaped, the margins undulating, and the tips reflex slightly. Colour greenish white when they first open, changing to a pale cream on expansion; the inner surfaces dotted very pale red on wart-like processes, which become claw-like near the base. A band of pale yellow traverses the whole length of each petal. Anthers orange red, very large, borne on filaments which reach halfway down the petal.

Var. virginale is the white form of *platyphyllum*, and a very beautiful chaste coloured Lily. It is quite unspotted, and the median band is a pale shade of green.

Var. shirleyense is a glorified *virginale*, very strong in growth. Flowers massive, striped down the middle of each petal with yellowish grey, and spangled with broad dots of buff elsewhere. Habit of *platyphyllum*. Evidently a very desirable form, for which we are indebted to the Rev. W. Wilks, who has raised a large stock of plants from a single bulb selected several years ago. Rare in cultivation.

Var. rubro-vittatum (the red-banded *auratum* Lily).—A slender-growing, richly coloured variety, apparently of garden origin. Bulbs as in *auratum*, generally small. Stems dark green, 3 feet to 5 feet high, slender. Leaves dark green, nearly all confined to the upper half of the stems. Flowers three to eight, narrow petalled, 10 inches long, generally drooping, white, margined with a faint edging of crimson, heavily dotted on the face of each petal with large blood-red dots, and broadly banded crimson from tip to base. Anthers red. Very variable. *Crimson Queen* is a very rare form almost wholly coloured crimson, the petal margins alone being white. Fairly common in cultivation.

Var. Wittei is a dwarf-growing plant, the albino of *L. auratum*, *virginale* being the white form of *platyphyllum*. Bulbs small, as large as a Tangerine Orange, scales numerous, lance-shaped, with slender tips. Stems rarely exceeding 3 feet to 4 feet in height, slender. Flowers three to six on short foot-stalks, arranged in a closely compact raceme so that the petals interlock, white, unspotted, banded deep yellow down the middle of each petal, crimped and undulating at the margins, and the tips gracefully recurve. Anthers reddish. A very chaste variety, but rather difficult to grow in the open for any considerable length of time. Common in cultivation. *Cruentum*, *Melpomene*, *Emperor*, and *Parkmanii*—this latter of hybrid origin—are now lost to cultivation.

Fasciated forms with flat, ribbon-like stems of great breadth, bearing 50 to 100 small and generally imperfectly formed flowers, often occur. The freak is generally a result of injury to the preceding season's flower-stem or excess of plant food in the soil, and is often permanent in duration. *Speciosum*, *candidum*, *monadelphum*, and *Henryi* often produce monstrous stems under good cultivation.

Var. Tashiroi, a dwarf, large-flowered form introduced in 1903, requires further study.

CULTURE AND USES.—The *auratum* group of Lilies has two distinct types of roots—one set produced from the base of the bulbs, whose numbers cannot be abnormally increased, and which are produced late in the year; and another set at the base of the stems, and it is upon the best development of these that success in their cultivation mainly depends. Under normal conditions, where the bulbs are but slightly buried, the lowest inch or so of the stems alone produces roots, but if the situation is cool, moderately moist, and the surface of the soil is covered by low-growing border plants or screened by dwarf shrubs, and if the

bulbs are buried 6 inches to 9 inches deep every inch of the stems will produce roots and do thrice the work of those normally developed. *L. auratum* is not a plant of the plains, but an inhabitant of cool hillsides covered with abundant leaf-soil, in which grows a veritable tangle of other plants. One can grow and flower large bulbs well once without consideration of their natural associations, but if one wishes to establish this fine Lily or any of its forms thoroughly in the open in Britain a low-growing carpet must be provided, the roots of which will withdraw excessive moisture from the bulbs and keep them cool; and, further, a wind screen of shrubs, not necessarily high, must be provided that will temper cold and frosty winds as the young shoots pierce the ground. The cultivation of *L. auratum* is purely and simply association with protective plants; without such, it is not too much to say it cannot be grown in Britain in the open garden for a term of years. Soils for this type of Lily should be light, yet full of nutriment, and we have found that any natural staple free from lime will grow this Lily well if a liberal dressing of peat or leaf-soil be added. Of these two ingredients leaf-soil is the better, particularly if it consists of the upper stratum of semi-decayed leaves found in all Beech and Oak woods. It is necessary that all diseased portions of the scales or those that are quite withered should be cut away before planting, even if but little more than the growing point remains, for many of the failures to grow *L. auratum* have origin in planting the bulbs as received. October and November are the best months for planting operations.

POT CULTURE in the greenhouse is a popular way of growing *L. auratum*, and it is a good way, for the conditions are under control of the cultivator at all times, and there is nothing exceptional in the treatment of *L. auratum* under glass. A moist yet buoyant atmosphere, frequent syringing on the mornings of warm days, occasional fumigation, and a steady warm temperature are practically all that is necessary. Bulbs should be started in pots just large enough to contain them, and when the growth is 1 foot high the plant should be lifted out and placed at the bottom of a pot 1 foot in diameter, adding soil incorporated with old manure inch by inch as the stem roots develop. Small bulbs less than 8 inches in circumference will be satisfied with smaller receptacles, but in any case half the soil should be at the disposal of the stem roots alone. As the flower-spike develops the assistance of weak manure water will prevent undue strain upon the bulbs, and when the inflorescence has died the plant will require just as much assistance as it did before so long as a good leafage remains, then drier conditions should be maintained, the bulbs finally shaken free of soil and restarted as before. For indoor cultivation we recommend the largest bulbs obtainable; for outdoor cultivation those about 10 inches in circumference are best, as they have a year or two ahead of them in which to reach their fullest development. Our experience leads us to recommend that instead of the usual drainage a small inverted pot be used and the bulbs placed immediately upon this, and for outdoor cultivation a similar practice is advisable in wet, retentive soils. It is remarkable how this simple precaution helps the bulbs.

A peculiar mishap, popularly known as sunstroke, caused sometimes by long sojourn in a warehouse or by the drying of the stem roots in the early stages of their growth, has been a source of great trouble to Lily cultivators. Deep planting obviates this in a

measure, and when the plants are grown in pots they should be placed where the sun cannot reach the roots. The mishap is simply a natural result of growing a shade-loving plant in an open exposure. No fungoid or other disease is found upon such specimens.

A disease which originated in Japanese warehouses, where quantities of bulbs are stored for shipment, does considerable damage to the scales in a dry state. It takes the form of slender silk-like threads, and it speedily reduces the bulbs to soft pulpy tissue. Badly infected bulbs are hopeless; those slightly affected recover if the decayed portions are cut clean away and the bulbs rubbed with common flowers of sulphur and planted forthwith in the best of all sterilisers—Mother Earth.

G. B. MALLETT.

(To be continued.)

NOTES ON HARDY PLANTS

THE FUNKIAS.

THE "Plantain Lilies" form a group of hardy ornamental plants, valuable alike for their handsome foliage and flowers. They are admirably adapted for use among other plants in mixed or shrubby borders, or for planting as isolated specimens on lawns. Although they thrive in almost any soil, they benefit greatly by good cultivation, deeply-dug loam, with the addition of manure, producing fine plants which prove very effective. In the "Kew Index" seven distinct species are enumerated, all natives of China and Japan, and six of which are now in cultivation. They show a great range in the form and colour of the leaves, *F. ovata* and *F. lancifolia* especially having numerous varieties.

F. Fortunei, sometimes known by the name of *F. cucullata*, is like a small sieboldiana, with very glaucous, cucullate, leathery leaves, the blades of which are cordate-ovate in shape. The flowers, which appear in July, are pale lilac in colour, produced in racemes on stems 1½ feet high; a native of Japan, whence it was introduced into cultivation in 1876.

F. glauca.—This is recognised as a true species in the "Kew Index," but the plants which have up to now been grown under that name are merely forms of *F. sieboldiana*. No authentic specimens of this are in the Kew Herbarium, and probably the true plant has yet to be introduced from Japan.

F. lancifolia.—A very variable species, with lance-shaped leaves tapering at both ends, and light purple or white flowers borne in lax racemes on slender stems 1 foot to 2 feet high. This and its numerous varieties are very useful as edgings for beds or borders, the compact, tufted habit rendering them peculiarly suitable for this purpose. The most marked varieties are: *F. l. alba*, with white flowers; *F. l. albo-marginata*, with green leaves, edged along the margin with white; *F. l. undulata*, with undulated leaves; and *F. l. variegata*, with beautifully variegated foliage.

F. longipes.—Seeds of this plant were received at Kew from the botanic garden of Tokio, Japan, in 1897, and several germinated, producing plants which flowered some four years later. It is evidently closely allied to the preceding species, only that the leaves are broader and the blade of the leaf is decurrent along the petiole. The bracts of the inflorescence are also much smaller, but the flowers are like those of *F. lancifolia*.

F. ovata, the common Plantain Lily, is one of the strongest-growing species, with large

tufts of broad, deep green, shining leaves. The flower-stems attain a height of 2 feet, terminating in a raceme of pretty lilac-blue flowers in July. A native of China, it was introduced into cultivation in or about 1790. There are two well-marked forms of this plant—var. *aurea*, with golden yellow leaves; and var. *marginata*, with green leaves edged with white. Also known as *F. cerulea*.

F. subcordata (syn. *F. grandiflora* and *F. japonica*), the Corfu Lily, is a very handsome plant, having the largest flowers of the genus. These are pure white and very fragrant, frequently attaining 6 inches in length; not so free flowering as its fellows, it is more particular as to situation, which should be a warm, sunny place in well-drained soil. The leaves are numerous, light green, and from 4 inches to 6 inches broad. A native of China and Japan. It is stated by collectors that it is found growing on the tops of cliffs in almost inaccessible places. Introduced in 1790.

F. sieboldiana (syn. *F. cordata*, *F. sinensis*, *F. Aokii*).—The most ornamental species of the group with its bold foliage, the large, glaucous leaves often reaching the width of 1 foot. It is the most suitable for massing in groups on lawns for effect or for planting as isolated specimens. The flowers bear a considerable resemblance to those of the Corfu Lily, although much smaller. They vary in colour, some being white while others are of a creamy lilac shade, and are borne on stems attaining a height of 3 feet. Native of Japan. Introduced in 1830.

F. tardiflora.—This new plant, which the illustration shows growing in an open border, is undoubtedly in close affinity with *F. lancifolia*, of which it may be considered by some a mere variety. It is certainly distinct enough for garden purposes, its chief difference to the foregoing being in the time of flowering. *F. lancifolia* flowers in July, while the present plant does not bloom till the end of September or beginning of October. The dark green leaves are firmer in texture and have shorter petioles, giving the plant a very tufted appearance. Freely produced on rather stout, purplish stems 12 inches to 18 inches high, the light purple flowers are borne in dense racemes often numbering fifty, another point of difference from *F. lancifolia*, in which the racemes are lax and comparatively few flowered. The

purple colour of the flowers also pervades the bracts, giving the whole a charming appearance and making it a really valuable plant for the decoration of the herbaceous border. Grown in pots it is exceedingly useful for furnishing the conservatory at a time when the choice of plants is limited. This species was introduced into this country in 1895, when plants were obtained from Herr Max Leichtlin of Baden-Baden, flowering at Kew the following October. It may be rapidly increased by division of the root, as all other members of this genus, and is a plant of great promise worthy of a place in the smallest garden. W. IRVING.

PLUMBAGO LARPENTÆ.

Of the great number of persons who passed into the large vinery at Chiswick on the occasion of the recent fruit show, how few probably paused at



FUNKIA TARDIFLORA (THE LATE-FLOWERING FUNKIA) AT KEW.

(The photograph was taken on the 16th inst.)

the rockwork near the entrance to admire the blue-violet blossoms of Lady Larpent's Plumbago, the blue-flowered Leadwort. It was introduced from Shanghai in 1846, and distributed by Messrs. Knight and Perry, the then proprietors of the Exotic Nursery at Chelsea. When first distributed it was treated as a greenhouse plant, though with scant success, but it soon began to be credited with greater hardihood of constitution than was generally supposed the plant possessed. It early came under the notice of Mr. Edward Beck of Isleworth, then the conductor of the *Florist and Garden Miscellany*, and was figured in the May number from a drawing made at Chelsea. Mr. George Nicholson informs us in the "Dictionary of Gardening" that the correct name of the plant is *Ceratostigma plumbaginoides*! The older name will be generally preferred. The rockwork at Chiswick appeared to be an ideal place for this plant. It was by placing it in such a spot at Worton Cottage that Mr. E. Beck became impressed with its value, and I well remember seeing

Mr. Beck's specimen when in the full flush of its beauty; it had spread itself in the soil just as it has done at Chiswick, and it appeared to be perfectly at home in each place. At Chiswick the specimen occupies a place on the rockwork, where it is raised about a foot or so above the ground level, and here it is extending itself and covers a good space of the surface facing the south, but where it can have some shade at midday. If planted on the ground level it is found to do best in a warm, sandy loam or light soil in a sunny position. A raised position is an ideal one. The flowers resemble those of a Phlox, and are produced in clusters from the leaf axils. It is a plant which can be propagated by division of the roots in autumn and spring, but modern authorities recommend the spring in preference to autumn.

R. D.

DIANTHUS CALLIZONUS.

In response to an enquiry about this pretty Dianthus we give the following note from Herr Max Leichtlin, which appeared in *THE GARDEN*, July 28, 1900, page 68: "Dianthus callizonus is a native of the Transylvanian Alps, and one of the most showy alpine we have. It is a well-established plant, which throws up hundreds of flowers over an inch in width during three or four weeks in May. They are of a bright rose colour, with a zone of paler rose towards the centre, which is beautifully speckled with crimson; they are borne on short stalks just above the dwarf deep green foliage, which by breaking the monotony of the sheet of rose even helps to increase the plant's beauty. It is of easy cultivation, and prefers a peaty soil with the addition of a little loam."

HIBISCUS MOSCHEUTOS.

It is surprising that this fine, if rather coarse, plant does not flower freely in our islands, seeing that it does so in its native habitats in the United States, including such parts as New Jersey, where it blooms in profusion in July and August. Its abundance along the coast there has been remarked by those who have seen it, and writers have depicted in attractive language the effect of its wide, gay flowers, and of its large foliage among the Grasses and Sedges of the marshy lands. Unfortunately, our cooler summers seem against its blooming in good time, so that its usefulness for British gardens is largely neutralised. Yet there are gardens in warm localities where an effective plant like this might be utilised, and where it would be well in bloom before frost cut it down or spoil its showy flowers. It is an old plant to cultivation, and "Salmon's Herbal," published about 1710, gives a quaint description of it under the name of the "Rose Marsh Mallow of America," and tells us that it "has a root which is thick, white, and fleshy, which abides safe in the earth all winter, tho' the Stalks die away and perish every year. This plant shoots forth about May, several round, greenish, soft, branched Stalks like to the Marsh Mallow, beset with several soft green leaves which are gray underneath. At the tops of the Stalks and Branches stand several white Flowers, made of five large leaves a piece, somewhat like a Hollyhock, with a tuft of white threads, compassing a middle Umbone or Pointell, issuing out of a great Button or Husk, which is as it were Ribbed, and broad at the bottom, narrowing to the top, before the flower blows, and without any smell."

Although Salmon says the flowers are white, they are sometimes a deep rose or purplish hue, having a lighter centre, but, when white, having a rosy tinge towards the centre. The flowers are from 4 inches to 7 inches broad, while the leaves are ovate or ovate-lanceolate, white and pubescent beneath, and generally glabrous on the upper surface. Its stature is variable, ranging from 3 feet to 7 feet; it is quite herbaceous in habit.

It prefers rather marshy soil, especially if of a brackish character, and its habitats in North America even extend inland to places where the soil is of a saline character. It is, however, capable of cultivation elsewhere, and its main requirements appear to be plenty of moisture and full sun. It is easily raised from seeds, and is suitable for places where wild gardening is followed and where groups of this plant would produce a good effect. It has been known as *Ketmia* and *Hibiscus palustris*, its popular name in North America being the Swamp Rose Mallow or Mallow Rose.

Carselhorn, by Dumfries, N.B. S. ARNOTT.

THE FLOWER GARDEN.

AN HOUR WITH THE HOLLYHOCK.

(Continued from page 281.)

IT has been said that fine Hollyhocks are originated in Scotland and France. In the autumn of 1850 I saw the most celebrated collections in both countries, as well growing as on the exhibition tables. There are two distinct strains in Scotland. The varieties of the one strain, although superior to the common



DIANTHUS CALLIZONUS.

English kinds, are inferior to those of Mr. Baron; those of the other have sprung from Mr. Baron's stock. Some of them, while bearing different names, appear identical with the English kinds, which appearance is supported by the fact that certain kinds are reproduced true from seed. But if not identical—a point difficult to pronounce upon when we consider the variation of soil and climate—they certainly bear a close resemblance. It is not my wish to depreciate the varieties of Scotch origin. I have seen large and handsome flowers in Scotland, remarkable for smoothness and brilliancy; but it must be told that northern and southern florists do not altogether coincide in their ideas of a perfect flower, and each judges according to his own standard. Moreover, the Scotch flowers do not improve in an English climate, and our flowers are probably better here than there.

Much has been said of the beauty of the French Hollyhocks (*Rose tremières*). We have taken considerable pains to visit the principal collections, to ascertain whether they were worthy of introduction to British gardens. Those of MM. Pélé and Bacot, both in the neighbourhood of Paris, are the best. They are superior to the old English varieties, but

inferior to the modern ones. In conversing with the French growers, it was evident that the Hollyhock had not yet taken a very high standing in their country; they had not learned to view it critically; it had not, so to speak, become a Florist's flower; and hence any variety the *tout ensemble* of which produced a pleasing effect was cherished, without much regard to the individual points of form, colour, substance, &c. Some of the mottled or variegated kinds were pretty and distinct; but we could not discover any that would stand the test to which they would be submitted by the English florist.

It may be some gratification to the lover of this flower, in a utilitarian age like this, to be able to assert a claim for his favourite on the ground of utility. In the "Flora Historica" we find the following: "The Hollyhock is likely to hold a higher rank in rural economy than that of feeding bees. For some years past it has been known that a good strong cloth may be made from the fibrous bark of the flower-stalks of this plant, and in the year 1821 about 280 acres of land near Flint in Wales, were planted with the common Hollyhock, with the view of converting the fibres of this plant into thread, similar to that of hemp or flax. In the process of manufacture it was discovered that the plant yields a fine blue dye, equal in beauty and permanence to the best indigo."

This historical notice will, perhaps, be thought sufficiently extended, and we proceed to lay before our readers a brief account of the culture of this flower. In passing, we may, perhaps, be allowed to state our views of the purposes to which the Hollyhock may be applied in garden-decorating, and the positions it is best suited to occupy.

We do not remember that we were ever more struck with the value of this flower for producing effect in garden scenery than by the sight of a round clump planted among groups of trees, shrubs, and dwarf-flowering plants, at Haddo House, Aberdeenshire, a seat of the Earl of Aberdeen. It was in October, and the foliage of the trees

was surpassingly beautiful; the leaves had assumed the tints peculiar to that season, and, "touched by autumn, seemed as if they were blossoming hues of fire and gold." The flower-beds beneath were in dazzling glow, scattered like so many pictures over the lawn, whose verdant and smoothly-shaven surface grouped them in a neat but agreeable frame. Beautiful as were these features, viewed individually, we felt a want of continuity, a sense of incompleteness, until the eye fell upon a group of Hollyhocks which, towering aloft, blended harmoniously with trees and flowers, producing a perfect whole. In this instance various colours were placed in the same bed, which was in good taste; but we can conceive of circumstances in which several small clumps, slightly dispersed, each filled with a single colour, would be more striking and equally effective.

The Hollyhock is a capital plant for the borders of plantations or shrubby walks; it forms a finer distant object in such situations than the Dahlia, is less lumpish, and continues blooming to a later period of the year. Again, it may be planted to advantage in the background of an herbaceous border, so that the

lower part of the stem is hidden from view by the plants in front. In both these situations it may be planted singly, in irregular lines, or in groups of three or five. And here, perhaps, the less choice kinds are more in character than the finest, as a high state of culture is neither convenient nor expected. To be effective *en masse* is all that is looked for, and the showiest should be chosen, the hardy kinds of brilliant colours, and left to assume their natural form of growth.

It is sometimes said that it is not a suitable plant for small gardens. We think, however, it may be agreeably disposed there in avenues, or in groups of three or five near the boundary, filling up in front with dwarf shrubs, herbaceous, or summer-flowering plants. It appears to us anything but difficult to effect such an arrangement with this plant as shall relieve the flatness often so tiresome in small gardens.

The amateur, who cultivates with the view of producing the flowers or spikes in the highest state of perfection, will probably prefer planting in square beds or rows. This is convenient for shading, and places the whole under the eye at one time. If planted in beds, set them 3 feet apart; if in rows, 3 feet from plant to plant, and 4 feet from row to row, that one may walk conveniently between them.

In regard to the soil suitable for the *Hollyhock*, it happily is not over-fastidious in this respect. It is a gross feeder, as its fleshy porous roots and large soft leaves, with high perspiratory powers, abundantly testify. It is found to thrive well in common garden soil, although, if a choice is at hand, a rich moist loam may be preferred. We need, perhaps, scarcely say that a situation airy and freely exposed to the sun is indispensable if we wish to carry culture to the highest pitch of success.

As our remarks are intended for the guidance of the beginner, we will suppose him to have obtained a supply of plants in October or March, and from that period we will trace their culture. First let us ask, "Have these plants been raised from grafts, cuttings, or from seed?" Cuttings or seedlings we think preferable, where the correctness of the latter can be guaranteed by the raiser having previously bloomed them; but as some kinds only are reproduced true from seed it is likely the stock will consist partly of plants raised from cuttings or grafts. One thing is certain, the stock should be renewed every year, either by purchasing or propagating. However abundantly old plants may bloom, they will not produce such large handsome spikes of flowers as young ones. Whether obtained in autumn or spring, they should be at once transferred from the small pots, in which they have been kept for convenience in removal, to larger ones, using a compost of turfy loam, sand, and decomposed manure, placing them in a cold pit until they may be safely planted in the open ground in May.

WILLIAM PAUL, F.L.S.

(To be continued.)

THE BELLADONNA LILY.

AUTUMN provides few more useful or beautiful flowers than the *Belladonna Lily*, and what a delightful picture can be made by a good planting of this bulb our illustration shows. This border of *Amaryllis Belladonna* is at the foot of the Aroid House at Kew and has a southern aspect, and annually at this season is a picture worth going far to see. From one end to the other it is a mass of lovely pink flowers. Without exaggeration it may be said to be the most striking bit of flower gardening in Kew at the present time. The *Belladonna*

Lily is a plant that should receive extended culture, for, although its flowers would be valuable at any time of year, they are doubly so now when hardy flowers get scarcer every week. Provided the bulbs are planted in a warm, well-drained border in fairly light soil, they invariably grow well.

SOME OF THE NEWER EARLY-FLOWERING CHRYSANTHEMUMS.

THERE have been many additions to the list of first-rate sorts during the present year. Last spring many were distributed for the first time, and all interested in the varieties have every reason to be pleased with most of the novelties. There are several specialists who are now devoting their attention to the raising of good new early-flowering sorts. The fifteen seedlings of Mr. Goacher's, which were distributed last spring, have proved of sterling merit. Almost without exception his plants flower in September and give a most attractive display. The habit of the plants is all that could be desired, their growth in the majority of instances being bushy and sturdy. It is very gratifying to be able to record such distinct advance, and, while this is so, it is safe to anticipate an increasing demand for these autumn flowers.

Mr. H. J. Jones has also distributed many excellent seedlings, and in his case the well-known early-flowering Japanese *Mme. Marie Masse* and its sports have been used as seed-bearers and pollen-bearers too. The result of this progeny is seen in plants possessing many of the characteristics of the parent plants. It is curious to note how distinct are the methods adopted by these two raisers, judging by what is seen in their respective seedlings. I was unable to secure plants this season of these novelties, much to my regret. Fortunately, I have seen them growing in different trade collections, and on the occasion of the Tamworth Chrysanthemum "feast," when Mr. William Sydenham had all the novelties planted and a large proportion of them in flower at the time, I was able to take copious notes of each one. The varieties described below are not necessarily of the present year's introduction; as a matter of fact, some were distributed early last year, and a few others possibly earlier.

JAPANESE.

Rosie.—An exceptionally fine flower, being large and full, and of a rich terracotta colour, tipped gold, with a golden centre. The blooms retain their colour till the end. Their value is enhanced because of the long, erect flower-stems, making them valuable for decoration. Fine branching habit, height 2½ feet. Period of flowering, September.

Kitty.—This is a pretty little decorative sort, with pleasing soft pink blossoms in useful sprays. Some may regard the flowers as rather stiff. The plant is of bushy habit, height 1½ feet. A useful September variety.

Muggie.—An effective plant for the border. The flowers are bright yellow with recurving florets, making a full bloom. Each bloom is borne on a useful length of foot-stalk without disbudding, and the plant is a profuse bloomer. Good bushy habit, height 2½ feet. In flower during September.

Cactus.—Another charming variety. The dainty little Cactus-like blossoms, on long foot-stalks, are of a fiery crimson colour, shaded red, with a bronze reverse to the narrow florets. The plant is very free, and has a desirable branching habit. Height 3 feet. In fine form throughout September.

Maggie McLeod.—This is a capital plant that produces handsome sprays of pretty little Japanese blossoms quite freely. Their colour is particularly attractive, orange terra-cotta aptly describing them. Height about 3 feet. In flower in early October.

Polly.—This is one of the best of the present season's introductions. The flowers are large, with broad florets, and very full, even without disbudding. They are borne on long foot-stalks, and are also developed quite freely. The colour may be described as amber-yellow, sometimes suffused bronze. Height about 2½ feet. In flower during September.

Mrs. F. W. Wescott.—A novelty of a distinct and pleasing shade of rich glowing lake, with bronze



THE BELLADONNA LILY (*AMARYLLIS BELLADONNA*) AT KEW.

reverse. There are too few Japanese sorts of this colour. The flowers are borne in profusion in useful sprays. Branching habit, height about 3 feet. Period of flowering, the earlier half of October.

Cranford White.—From what was seen of this plant when exhibited last season it seemed hardly possible that it would prove to be so good. The flowers are large and full, on good, erect flower-stems. Colour white, tinted pale pink on younger blooms. Free flowering, bushy habit, height about 1½ feet. At its best during the latter part of September and early October.

Nellie.—A large, fairly good flower on long, fairly strong, erect foot-stalks. It should be disbudded to some extent to be seen at its best, as it is not very free. Colour yellow. Height 2½ feet. In flower, September.

Mrs. A. Willis.—This is a valuable sport from Japanese Mme. Casimir Perier, and partakes of all the good points of the parent variety. The colour may be described as deep yellow, shaded

and striped with red. The plant is a most profuse bloomer, possessing a bushy habit. Height about 2½ feet. A mass of flowers is developed in late August and throughout September.

Mabel.—A charming little free-flowering plant. The blossoms are certainly pleasing and dainty, the colour being a lovely shade of cerise-pink, with a golden buff centre. Habit dwarf, though not so sturdy as one would desire. Height about 2½ feet. Period of flowering, September.

Carrie.—In this instance we have a plant that may be regarded as a most persistent bloomer. The colour is a rich bright yellow, of good form, and the flowers do not lose their beauty in wet weather. It is free-flowering and of a good bushy habit. Its constitution is also robust. For border culture it is an ideal sort. Height about 2½ feet. In flower from August onwards.

Several other good sorts will be described in a subsequent issue.

Highgate, N.

D. B. CRANE.

GARDEN ORNAMENT.

LEADWORK.

WE are apt to consider the plumber rather as a working man than as an artist, and, indeed, at the present time leadwork has lost much of the dignity lent to it by the admirable designs used in bygone times, when even a pump-head was often made so beautifully as to be worthy of preservation in a museum. The ease with which lead can be manipulated is probably the reason that even in remote antiquity it was employed not only for useful but also for ornamental purposes. It has the rare merit of durability, although, owing to its pliable nature, very large pieces of Greek and Roman leadwork have not come down to us. The writer remembers many years ago attending an excavation in Rome at which several big specimens of leadwork were discovered, but they had been flattened in the course of ages to the consistency of pancakes, though still retaining evidences of having once upon a time been either fair-sized busts or vases.

In remote antiquity lead was used for the reproduction of small images of the gods, which, judging by those preserved in the National Museum of Naples and of the Lateran at Rome, were coated with paint. At Nineveh, and among the ruins of famous classical cities in various parts of Asia Minor, leaden images, jars, and pieces of elaborately decorated water pipes have been found in great quantities. It seems, however, according to Sir G. Wilkinson, that lead was not greatly used in Egypt, excepting for the inlaying of temple doors, coffins, and furniture, and as small statues of the popular gods Osiris and Anubis.

At a very early age the plumber's trade included that of coffin-making, and there is scarcely an ancient people which did not employ this metal in the manufacture of "man's last home." Many of these leaden coffins were superbly decorated with intricate patterns; indeed, even the effigy of the dead and various pagan or Christian emblems figured upon the lid. Among the finest specimens is one in the Temple Church, and there are two others at Lewes, in Sussex, with exquisite crosswork patterns on them. One relating to Sir William de Warren is dated 1088, and the other to his wife, a daughter of the Conqueror, bears a date three years earlier. At the heads are the two names of their ancient inmates, Wilhelm and Gondrada. In Italy there are a great number of elaborate lead coffins, and a few years back I remember to have seen in the Church of Santa Maria di Monserrato, Rome, the two fine leaden coffins containing the remains of the famous Borgian Popes, Calixtus III. and Alexander VI. They had rested in the vestibule since their removal from the old Basilica of St. Peter's, in the beginning of the sixteenth century, but were, at the expense of the Spanish Government, encased in a suitable monument some ten or fifteen years ago.

Greek and Roman gardens differed in most respects from our own. Almost every house in Ancient Greece had its garden, that is to say, a sort of terrace on which Cypresses and Oleanders grew in artificial beds, containing a sufficiency of earth to give them nourishment. The Greeks, however, seem to have had no idea of flower-beds, in our sense of the term, but cultivated their bulbs, Rose bushes, and other decorative and flowering plants in pots, many of which undoubtedly were made of lead



FLOWER VASE (LEAD) AT DRAYTON MANOR

and highly decorated. Homer gives us in the "Odyssey" a fine description of the gardens of Alcinoüs, which seem to have been a combination of orchard and flower garden, together with the usual architectural garden which the Greeks considered perfection. But the Romans, who evidently derived the arrangement of their gardens from the Greeks and Etruscans, enlarged upon the original scheme, and in classical times Italy might well have been described as one vast garden, extending over the whole of the civilised part of the Peninsula. Some of the Roman gardens, those of Pompey, Lucullus, and Mæcenas, were of enormous size, and included meadows through which artificial rivulets were made to flow, and important and well-organised vegetable and fruit gardens. But the decoration of a classical garden was probably much too artificially elaborate for our taste.

In some of these old Roman gardens there were as many as 4,000 or 5,000 statues, mostly of white marble or bronze, and the finest works of ancient sculpture now preserved in the Vatican and other museums originally formed part of the marble Olympus of some classical garden. Leadwork was plentifully used by the Romans for vases, water troughs, and also, occasionally, for statuary purposes, but marble and bronze, being then, as now, comparatively cheap in Italy, were naturally preferred to the inferior material, which does not produce the same effect in a brilliant southern atmosphere that it does in our own, which, with all its faults of changeableness, is nevertheless exceptionally soft and silvery.

At the time of the Italian Renaissance, that is to say, about the beginning of the fifteenth century, the Italians were seized with a rage for building villas after classical models, and leadwork reappears in their long and stately walks and formal alleys. Ficoroni, in his book "De Piombi Antichi," mentions some important leadworks modelled after the antique as having been set up in the sixteenth century in the gardens of the Villa Ludovisi, and of other celebrated villas in and near Rome, as well as at Florence and Genoa, but very few of them are now in existence.

France took up ornamental gardening some fifty years before we began to turn our attention to the subject on a large scale. Outdoor gardens, however, were, in those times of almost incessant civil war, very small. Caylus, in his curious book on leadwork, tells us of the existence in France of leaden statues at an early period, but observes that they were exceedingly rare, and it is doubtful whether leaden statues were ever introduced into French gardening on any considerable scale until quite the reign of Louis XIV., when reproductions of celebrated statues in the Italian museums and galleries, and some fine original works were manufactured, and thus began to make their appearance even in the suburban villa gardens of Paris. It was unquestionably the abundant use of lead in the gardens at Versailles which set the fashion of the employment of this material for garden decoration in this country. Under Louis XIV. François Girardon designed and executed the enormous fountain of the Pyramid, which is altogether the most elaborate composition ever executed in lead, and consists of a basin in which sport three life-sized tritons, rising from a pedestal. Above these is a circular basin, and above it again three others, diminishing in size, each supported from the one below round the rim by little tritons and dolphins, whereas the last is entrusted to a group of lobsters. In the Versailles Gardens are, it seems, many



THE SILVER HOLLY (ILEX AQUIFOLIUM ARGENTEUM) IN THE GARDENS OF SHIPLEY HALL, DERBY.

other leaden statues, but most of them have been painted over.

There is a figure of Mercury at Melbourne, which is very suggestive in its pose of Gilbert's Eros on the fountain at Piccadilly Circus, and is in all probability a leaden replica of a statue of Mercury by Giovanni da Bologna, which is mentioned among the collection of statues which for some twenty years in the first half of the seventeenth century adorned York Terrace, Strand, and which were included among the art treasures belonging to Steenie, Duke of Buckingham. The original statue is lost, but there are several drawings of it extant.

Drayton House, with its quaint old English garden by way of foreground, forms a scene which can only be enjoyed in England. It may not possess the architectural magnificence or the luxuriance of an Italian villa and garden, but where can anything comparable to it be found in its reposeful air of comfort? The Italian villa is altogether too romantic for our matter-of-fact days, and is better suited to an age and climate where serenades are possible, and stately pavones can be danced by

the light of the moon. So, too, the leaden vases which ornament the terraces of Drayton, exquisite in design, their silvery hues blend with the soft English atmospheric effects far better than would the cold garishness of marble, and prove once more that leadwork should find its place in every well arranged English garden.

(To be continued.)

TREES AND SHRUBS.

TWO GOOD HOLLIES.

THE following notes, to accompany illustrations of Hollies in the pleasure grounds at Shipley Hall, may be taken as supplementary to those published in the issue of THE GARDEN for June 20 last (pages 423-4), in which the general conditions of soil, planting, selection, and culture necessary to grow good, healthy, and shapely specimens were discussed. In referring readers back to these notes I may add that extensive planting operations carried out this spring add further

proof, if such is necessary, that late spring planting is by far the best. We commenced planting quite large specimens, running up to 13 feet and over in height, when the cold snap at the latter end of April was over, and continued throughout the whole of May, and, I think, into the first week in June. All the trees dealt with have done well, but the growth made has been in inverse ratio to the time of planting. The last specimen dealt with was a plant of *Ilex Whittingtoniensis*, a by no means vigorous grower generally, but it has made shoots considerably over 1 foot in length, and scarcely lost a leaf. The period of planting can be traced by the growth made, and by the loss of leaf which occurred, those first planted losing most leaves, probably from the fact that the soil was then cold and the roots not fully active.

In my June notes I alluded also to the "feathering down" of the trees, well exemplified in the Silver Holly here illustrated, and attributed it to the clean soil surface kept round the plants, which are growing on the lawns. To keep this clear space open without showing too much bare soil it is advisable to take off turves from 6 inches to 1 foot wide about twice a year; first, in spring, at the commencement of growth, and again just when the second growth starts. This keeps the mowing machine quite clear of the lower growths, and the turf raised comes in very useful for repairs to bad patches in the grass elsewhere. Going back to the planting I may say that from May 18 to July 27 this year our rainfall amounted only to a little over 2½ inches, so that the season was not an ideal one for newly planted evergreens.

Turning to the two subjects immediately at hand, I may say that I consider *I. argentea marginata* to be by far the best and most effective of the Silver Hollies. It is a very healthy and good grower, and very little affected by the leaf-mining grub which defaces so badly many Hollies, an important point worth noting by planters in badly affected districts. In its spring garb, when the new growths are tinged with pink, it is very beautiful; and later, when the pink changes to white, no Silver Holly has a better defined or whiter margin to the leaves, though that of Silver Queen is broader. The leaves of *I. argentea marginata* are rather small, and are particularly well armed. The habit is dense, and the tree is not disposed to lose the top of its leading stem as many of the variegated Hollies do, so that, given a good start, a shapely tree is practically assured. Before leaving the silver-leaved Hollies I may say that the variety known as Handsworth Silver, sent out many years ago by Messrs. Fisher, Son, and Sibray, is an excellent companion to *I. argentea marginata*. It is a quick grower, with a well marked, much elongated leaf, and makes a very healthy and good specimen. *I. crenata*, which will be illustrated next week, is so distinct from all other Hollies that it is frequently not recognised as belonging to the genus. The leaves are smaller than those of the common Box, without spines, but with crenated edges, and are very dark green in colour. It bears myriads of tiny blossoms, but I have never yet seen a berried form of the plant. Its habit is that of a dense spreading bush, that cannot by any manipulation be grown to one leading stem, but a glance at a good plant will show that in its way it develops into a shapely specimen, suitable either for growing singly on the lawn or for use as a frontage to a shrubbery. It has been described as "a pretty species for dwarf bedding," but the specimen at Shipley

is at least 8 feet high and over 12 feet in diameter. Judging from this plant and others that have been grown here, there is no reason why it should not double its present size. There is a form of *I. crenata* in which the leaves are more or less splashed with yellow, but in this case variegation seems to be wedded to a stubborn habit of growth, and those specimens which really grow away freely go back to the green type.

J. C. TALLACK.

NEW TREES AND SHRUBS.

NOTES FROM THE AUTUMN CATALOGUES.

THE autumn catalogue of M.M. Lemoine and Sons of Nancy contains, as usual, the announcement of some new flowering shrubs, most of which have been raised from seed at their establishment. The novelties, with a brief description from the catalogue, are:—

Deutzia gracilis multiflora.—Plant extremely tufted, with the growth like that of *D. gracilis*. The many upright branches are covered throughout their length with innumerable white, round-petalled flowers, while the stamens are scarcely noticeable. It is the result of crossing *D. gracilis* with *D. discolor purpurascens*.

Philadelphus Lemoinei Bouquet blanc.—The foliage of this is in general appearance midway between that of *P. Lemoinei* and *P. coronarius*. The flowers, which are borne in clusters of about ten together, are double or semi-double, and so closely packed that each cluster presents the appearance of one large double flower. Established specimens of this shrub are very beautiful, and distinct from any other form of *Philadelphus*.

Philadelphus Lemoinei Conquete.—The slender branches of this are arched over with the weight of flowers, which are borne three to five together. They are very large and double, the petals arranged in the form of a Tulip, and with the perfume of the hybrids of *P. microphyllus*.

Syringa vulgaris Pasteur.—A single Lilac, with long, erect, pyramidal-shaped inflorescences, while the flowers, which are the largest of all, are of a wine colour, changing to Mulberry red.

Syringa vulgaris Miss Ellen Willmott.—One of the double Lilacs of which M. Lemoine has raised so many within the last twenty years. In this the inflorescences are large, the flowers well formed, the petals spreading and of a snow white tint.

Syringa Giraldis (S. villosa, Sprenger).—A new species from Northern China with leaves soft in texture. It has not yet flowered in Europe.

A glance through the extensive catalogue issued by M.M. Barbier and Co., of Orleans, more generally known by the previous title of the firm as Transon Frères, resulted in a few novelties being particularly noted. Chief among them are:—

Ailanthus glandulosa pendulifolia.—A handsome tree, with leaves 4 feet long, gracefully drooping, and without any unpleasant odour.

Cornus sanguinea variegata Moseri.—The price of this, 10fr., would suggest a very superior variety. It is described as bearing quadri-coloured foliage, the leaves of the young shoots being margined with yellow, which changes to creamy white, tinted and bordered with carmine-pink, which with age increases in intensity. Whether this *Cornus* will ever become so universally popular as *C. Spæthii* remains to be seen.

Prunus spinosa purpurea.—Less prickly than the type, with leaves as highly coloured as those of *P. pissardi*. It is naturally of a bushy habit, and is very hardy. The flowers are small, pink in colour, and borne in great profusion.

Wistaria multijuga rosea.—A form of this long racemed *Wistaria*, whose flowers are of a lilac-rose colour with the standard of a lighter tint. The buds are of a beautiful clear rose.

Messrs. Veitch announce among various novelties for the present year two new shrubs, both of which have been exhibited by them, and a particularly interesting tree from Central China. The three subjects are:—

Buddleia variabilis veitchiana.—A very fine form of this variable species of *Buddleia*, whose

flowers are borne in great profusion. They are disposed in long racemes, and are individually bright violet-mauve in colour, with an orange-yellow centre. This was given a first-class certificate by the Royal Horticultural Society on August 19 last year.

Jasminum primulinum.—A beautiful *Jasminum* from Western China, which attracted much attention on March 10 last when exhibited at the Drill Hall and given a first-class certificate. Its nearest relative is *J. nudiflorum*, but it differs in many features from that well-known species. Firstly, it flowers in spring and not in winter as *J. nudiflorum* does; next, it is almost if not quite evergreen; and, thirdly, the flowers greatly exceed in size those of the older species, being fully 1½ inches across. The colour is a clear bright yellow, with a slight orange pencilling at the throat. Some of the flowers show a tendency to become semi-double.

Davidia involucrata.—Concerning this interesting tree Messrs. Veitch say: "The special object of our traveller's (E. H. Wilson) last journey to Central China was to obtain seeds of this strikingly handsome tree, which was first discovered by l'Abbé David, after whom it was named. In this undertaking Wilson was successful, and we are glad to be in a position to offer it to planters. Only young plants of *Davidia* at present exist in Europe, and all purchasers may have the honour of flowering it for the first time. In the whole vegetable kingdom there is not a more striking object than a tree of *Davidia* when covered with its pure white bracts, in which state it is conspicuous at a great distance. The tree attains a height of 20 feet to 30 feet, and there is little doubt of its hardiness in Great Britain, as it is found only in high elevations, where the winters surpass in severity those experienced in these islands. In our Coombe Wood Nursery plants have withstood 15° of frost unprotected." In THE GARDEN for January 4, 1902, Dr. Henry writes: "*Davidia*, a large tree bearing thousands of flowers, which are most peculiar. Inside a pair of white bracts about the size of the hand is a head of red-anthered stamens, out of which projects a champagne bottle-shaped gynoecium. This tree in full flower is a marvellous sight, owing to the alternate white and green, caused by the large white bracts intermingling with the leaves." It is to be hoped that such a desirable tree as this will prove hardy in British gardens. H.

NOTABLE GARDENS.

SANDRINGHAM.

A VISIT to Sandringham at any time cannot fail to be of interest, as in a garden of this description crops, &c., are grown on a large scale. As far as hardy fruit and flowers are concerned this has been a bad season for these gardens, spring frosts and a continuance of cold showery weather having been quite against a full crop of hardy fruit and blossom in the hags parterres. Growth there has been in abundance, but, as was to be expected, flowers were scarce. The magnificent centre path through the kitchen garden on the way to the dairy affords a grand opportunity for a blaze of colour, a border on each side—7 feet wide—being planted mainly with perennials and annuals, all arranged in a sloping bank. The borders are flanked with a row of cordon Apple trees of leading varieties. In spite of the weather many of the trees were carrying good crops of fruit. The path and borders cannot be less than 600 yards long. Some idea, then, can be gained of the effect produced with choice annuals in galore, and herbaceous plants carefully chosen.

In the small sunken flower garden close to the dairy are some exceptionally appropriate topiary work—Box and Yew—deftly formed and carefully clipped to retain the correct ideas of the various subjects. In the flower garden in front of the house tuberous Begonias were making a gorgeous display in spite of the dripping weather, proving once more, if it were necessary, how valuable are these plants for the outdoor garden.

Roses apparently had done good service; a long border in the kitchen garden planted with the finest varieties, especially Teas, in groups of half a dozen of one sort, were making satisfactory growth for a full crop of late and useful blossoms. The border in question is at the foot of a Pear wall, the border ranging in height from 2 feet to 4 feet from the path. What must be a very effective display during the spring and summer months is a rock garden, arranged to keep the border soil in its proper position and flanking the path. It is planted with *Aubrietas* in quantity, *Campanulas*, *Cotoneasters*, &c., for both winter and summer effect.

One could not fail to appreciate the master-hand at work when within the immense range of glass houses with which Sandringham is furnished. In spite of an indifferent season in this part, even for under glass occupants, the various departments left nothing in the matter of culture to be desired.

The Vines were especially noteworthy. In a narrow lean-to structure was growing the finest crop of Lady Downe's Grape I have seen for many a long day. Large were the bunches and berries, while that dense "bloom" on the berries which renders this late Grape so attractive, yet not always to be found, was here in perfect condition, proving once more, if it were required, that this Grape cannot be excelled for use during the early days of the year and onwards until Black Hamburg Grapes are ripe in May.

Two houses of Muscat of Alexandria were worth going a long journey to see, so even were the bunches; loaded as they were they are not always seen with that amber tint of colouring so pleasing, and which denotes exceptional flavour also. Speaking broadly the vineries were pictures of health and future promise, and such as even the exacting chief here, Mr. Cook, may well feel proud of.

It was too late to see a crop of Peaches; the appearance of the trees was sufficient to denote the kind of crops secured—that dark green ample leafage so necessary to success was here to its fullest extent. Melons for late use were in a most promising condition. In the plant department, too, there was evidence of perfect knowledge and care bestowed. One of the finest batches—1,000 plants—of *Begonia Gloire de Lorraine* that one could wish for were to be seen. The difficulty was to find a pale coloured leaf, let alone an unhealthy plant, among the lot. Carnations, too, are produced in huge quantities, and from the appearance of the plants they will be more so during the coming season. There are not many private gardens where such a collection of *Crotone*s is to be found. True, they are accommodated in a magnificent house for the purpose; no expense or labour is spared with them, as this is such a useful subject for decoration.

This is not intended as an exhaustive report of the many items of interest here to be found, but just a few jottings from memory made during a walk round the garden in early September. A good garden of fruit, such as exists at Sandringham, is always a pleasure to see, especially when the trees are thoroughly well grown. It is seldom that one sees the Muscat of Alexandria Grape so finely coloured.

E. MOLYNEUX.

[The publication of these notes has, unfortunately, been delayed.—Ed.]

ORCHIDS.

LÆLIA HELEN.

RAISED by Messrs. Charlesworth of the Heaton Nurseries, Bradford, was the above, its parents being *L. digbyana* and *L. tenebrosa*. Undoubtedly it is in the front rank of artificially-raised Orchids, and, as shown in the accompanying illustration, is very handsome. The sepals and petals are bronzy rose, the large beautifully-fringed lip being of a pale rosy lilac colour. As with the majority of *Lælia* and *Lælio-Cattleya* hybrids, its constitution is robust, and, given an

Some of the species have delicate white flowers—for instance, *G. discolor*, which proves very useful for bouquets, as well as for other purposes. Some are easy to grow and others rather difficult, but with care and proper treatment all may be had in perfection. When grown well they amply repay for any trouble that may have been bestowed upon them. They do not require the same treatment as *Anæctochilus*, as they will grow in any house where there is a temperature varying from 55° to 60°. The compost used for potting should be peat and sand, with a little loam. Always give a liberal supply of water to the roots during the growing season. *Goodyeras* are propagated by cutting up the plant so as to have a piece of root attached to each piece. Many growers of this beautiful plant pot six plants in a 5-inch pot; these, when grown strongly, will produce an abundance of flower during the winter season.

JOHN R. MORGAN.

Waddesdon Gardens.



LÆLIA HELEN IN THE GARDEN OF SIR TREVOR LAWRENCE, BART.,
BURFORD, DORSET.

ordinary *Cattleya* house treatment, its cultivation is easy. *L. Helen* received an award of merit from the Royal Horticultural Society on May 28, 1902.

THE GOODYERAS.

THIS is a very interesting class of plants belonging to the section of variegated Orchids. Many of the *Goodyeras* have beautiful foliage. Some have dark velvety leaves marked with gold and silver lines down the centres of the leaves, and others have gold and silver markings spread over the entire surface like the *Anæctochilus*. The plants have thick fleshy roots, and push from underground stems, forming a compact habit of growth. The flower-spikes which issue from the centre of the foliage attain a height of from 6 inches to 10 inches.

ANÆCTOCHILUS.

THE genus *Anæctochilus* is one of the most remarkable of the variegated-leaved Orchids. They are rather difficult to grow except under proper treatment, and are rarely seen except in large collections of Orchids. All are remarkable for a compact dwarf habit, perfect form, and great beauty; they vary in height from 3 inches to 6 inches, and their leaves vary from 2 inches to 5 inches in length, including the stalks, which, like the stems of the plant, are short and fleshy. The foliage of all the species is beautiful; in some of the varieties it resembles a purple velvet, regularly interspersed with a network of gold. In others the leaf is bright green, covered with silver tracery. The temperature required is 60° by night and 65° by day. From March to October is the season of growth, when they require plenty of water; in fact they should never be allowed to become dry at the roots or they will perish; but from October to March they should only have enough water to keep the compost moist. For potting use sphagnum chopped into small pieces, mixed with a little good peat and silver sand. These plants require small pots as they do not make many roots, and in placing the roots in the pot raise the stem above the rim of the pot. Well established plants may be repotted once a year, and the end of February or the beginning of March is the best time for doing this. They succeed best under bell-glasses or in a glass case, with a little air always on to keep them healthy and prevent damping off.

If bell-glasses are used plunge the small pot into a larger one, so that the bell-glass will fit the outer one. If grown in cases put them in small pots, and arrange them in the case, placing good drainage at the bottom, a layer of sphagnum on the top of the drainage, with some sand on the top of the sphagnum to set the pots on. The bell-glass or case in which they are grown should be kept perfectly clean in order that the plants may have plenty of light but no sun, for this is injurious to them. I have also seen *Anæctochilus* grown with bottom-heat, but with this I do not agree. In most cases the plants grow very fast for a time, but become so weak that they eventually die. The flowers are small and unattractive, and often injure the plants, so it is best to pinch them off as soon as they appear; this induces the plant to make lateral shoots freely. Propagation is effected

by taking cuttings with roots attached. The *Anæctochili* are subject to different kinds of insects, and these must be destroyed as soon as noticed or they will soon cause a lot of injury. Red spider is very destructive, and unless constantly kept in check soon disfigures the foliage. Upon the first appearance of this take the plants out of the case and rub the undersides of the leaves with a sponge. The thrip is another enemy which must be kept under in the same way or by fumigation, taking the glasses off for a short time. In smoking great care should be taken not to give too strong a dose. The safest plan is to fumigate three times, with an interval of one night between each operation, when both red spider and thrip will be destroyed. Cockroaches should never be allowed to get near the plants, as they do great mischief by eating the young stems. They must be sought after by lamp-light, or killed by placing some beetle poison in different parts of the house.

Waddesdon.

JOHN R. MORGAN.

(To be continued.)

GARDENING OF THE WEEK.

INDOOR GARDEN.

WINTER VIOLETS.

VIOLETS in pits for winter blooming should have attention at once. A gentle bottom-heat produced by fermenting materials is best. The materials should be well prepared before being placed in the pit, so that no violent heat occurs afterwards; 4 inches or 5 inches of good light loam, with a fourth part of leaf-soil added, will be suitable for planting them in. See that the soil is laid evenly over the fermenting material, and when planting keep the crowns of the plants slightly raised above the soil. Press the soil tightly around the roots, and, unless room is limited, place the plants 1 foot apart each way; give the pit a good watering with tepid water after the planting is completed, and ventilate freely during mild weather.

PLANTS FOR FORCING.

Where a regular succession of flowering plants is in demand, Ghent or American Azaleas embrace a large variety of seedling plants, having flowers of all shades of orange, yellow, and pink to almost white; they are hardy, force well, and are excellent for cuttings. *A. indica* varieties are the choicest section of the genus; they also force well, and produce flowers of every shade of red and white, but are not absolutely hardy. Plants of the *A. mollis* or *sinensis* section are very free blooming and of the greatest use for forcing. Selections may be made from the catalogues of any of the large nursery firms. *Spiræa japonica* var. *multiflora* and *compacta*, *Deutzia crenata*, *D. c. flore-pleno*, and *D. gracilis* are the most useful. Lilacs are indispensable for forcing. Marie Legraye is largely used for this purpose, but the finest pure white form is one supplied by Messrs. Veitch of Chelsea named *virginialis alba*, and for a deep purple *Souvenir de S. A. Spath*. *Staphylea colchica* is a very free-blooming plant. *Cytisus* in variety, including *C. scoparius andreanus*, *Dielytra spectabilis*, *Salomon's Seal*, *Rhododendrons* in pots, and *Roses* also grown in pots all require one or two year's preparation for forcing, and for this reason I recommend, as being in every way the most satisfactory, that they should be purchased from any of our large nursery firms who devote a department to this branch of the trade. As soon as the plants arrive they should be potted up into the smallest pots they can be got into without mutilating the roots, and for the Azaleas and *Rhododendrons* a little peat should be mixed with the soil; for the others any light soil will do.

POT THEM FIRMLY

and afterwards plunge them deeply in coal ashes out of doors until the time for starting them arrives. With the exception of Azalea *indica*, which must be placed in a cold pit, in all cases it is desirable that the forcing process should be

gradual and progressive, or the result will be an excess of foliage.

For the general stove and greenhouse the question of temperature and general treatment for the winter months will now engage the attention of the gardener. The temperatures should now rule considerably lower, and should be allowed to range from 4° to 6° between 10 p.m. and 6 a.m. in any house requiring fire-heat. The temperatures at 10 p.m. in the Croton house should be 70°; in the ordinary stove, 66°; *Pelargonium* house, for the show and fancy section, 54°; *Carnations*, 45°; *Cinerarias* and *Calceolarias*, 40°; *Ericas* and ordinary greenhouse plants, 40°. Admit a little air to all houses during the night by the side ventilators arranged under the stage, and to the cooler houses by the top ventilators as well. Avoid anything approaching a dry, burning atmosphere, but rather resort to damping the paths once in the evening.

Wendover.

J. JAQUES.

KITCHEN GARDEN.

CELERY.

MANY would imagine this to have been an ideal year for Celery growing, as it revels in abundance of moisture at the roots and overhead, but there has not been sufficient warmth, and all the crops that have come under my notice are far below the average quality, including our own. The Celery leaf-miner is in strong evidence; as a matter of fact I have never seen it so numerous as it is this year. Generally speaking this pest can be kept in check and often extirpated by timely applications of suitable insecticides or soot, but not so this year. The private grower has to maintain a supply throughout the winter and on into the spring, and he must afford some extra protection to the tops of the plants to ward off snow and severe frosts. Fresh cut Bracken is unsurpassed for the purpose, as it is light, and I know of nothing so suitable for gardens where large breadths of Celery are grown.

AUTUMN-SOWN ONIONS.

There are two methods of growing these, viz., by transplanting now on to prepared ground where they are to complete growth, and by leaving the plants where sown until March and then transplanting. I cannot say that there is much to choose between the two methods, at least I have grown them well by both. The nature of the soil and the locality has, of course, to be considered as to which is the best.

BEANS IN POTS.

It is now of little use sowing these, for before the plants could become strong the days would be so short, and the artificial conditions necessary for keeping them growing would be prejudicial to the free setting of the flowers. Plants in various stages of growth that require it should be top-dressed with rich, light soil, adding to it and well incorporating a few handfuls of an approved plant manure. Keep quite near the roof glass in a structure that is kept at about 60° by night and 70° by day.

RHUBARB.

Owing to the scarcity of Apples and other fruits there will be a greater demand for forced Rhubarb over as long a period as possible. A few roots should be lifted, and if possible subject them to a few degrees of frost, then place on the floor of the Mushroom house and shake some leaf-soil among them. Turn on a little fire-heat, and keep the crowns syringed several times a day. Of course the structure must be kept quite close and dark, and of an equable temperature. Successional batches should be brought in according to the demand, and as the winter advances and the roots become more matured the produce from them will naturally improve.

Stoneleigh Abbey Gardens.

H. T. MARTIN.

FRUIT GARDEN.

VINES.

WHEN the leaves are off the Vines steady attention to cleanliness, gentle warmth, and ventilation will carry all the late-keeping sorts on to Christmas, when they may be cut, bottled, and the Vines

pruned and rested. If not already done, the inside borders in the Lady Downe's house may be well covered with loose, dry Bracken, for the twofold purpose of keeping down dust and absorbing moisture. Outside borders may also be covered with shelters to throw off cold rain and snow from the time the leaves fall until the Grapes are cut, when exposure will again be preferable to getting the roots too dry. Where late Muscats are wanted to keep as long as possible, the houses will require very careful management during the fall of the leaf. Let the temperature decline to 50° in mild weather, and give no more fire-heat than is necessary to the maintenance of a dry, cool atmosphere and safety from frost. Remove all plants and evaporating pans, cover the floor with Fern, and dry out or cover up the water cistern to prevent the absorption of moisture by the atmosphere, which must now be dry and buoyant. As thoroughly ripened Muscats are easily caught by the sun, it is a good plan to strain a piece of Nottingham netting or thin canvas across the roof of modern houses to protect the shoulders and to secure an equal temperature through the night. If any late Hamburgs are still hanging on the Vines in houses which are retarded in the spring they will now keep better in the Lady Downe's house or Grape room, and in order to thoroughly ripen up the wood the house may be subjected to a period of sharp dry firing, with plenty of air on fine days.

EARLY VINERIES.

from which the first crop of fruit is to be gathered in May, may be closed at once. If fermenting material is applied to the internal borders a temperature ranging from 45° to 55° may be maintained without the aid of much fire-heat, but in the event of the weather becoming very cold the pipes must be made warm every morning and the swelling of the buds aided by frequent syringing with warm water. The best material for producing gentle warmth is fresh Oak leaves and short stable manure, thoroughly worked and fermented before it is taken into the house. The outside borders hitherto exposed to the elements may be protected with litter or shutters, but no artificial warmth must be applied to them until the buds begin to swell. After the house has been closed for a week or two the temperature may range about 55°, with a rise of 5° to 10° on sunny days. If the Vines are young they may be slung in a horizontal position, as more time and attention will be needed to secure an even break, while old ones will break equally well if tied up to the wires as soon as they are pruned and dressed and exposed to a few degrees more heat by day. But in all cases, from the beginning to the end, a low or resting night temperature will be found one of the main features of success in the cultivation of Grapes.

Madresfield Court.

W. CRUMP.

FLOWER GARDEN.

THE CLEMATIS.

No flower garden, however small, is really complete without some of the numerous varieties of this beautiful climber; the ease and rapidity with which it grows makes it one of the most popular of all our climbing plants. It gracefully trails over arches and covers bare places where it would be difficult to get things of a more tender nature to grow, and when a judicious selection is made clouds of blossom may be had from the end of July until quite late in the autumn. Now is the best time to plant, and it is well to make a good start and do the work thoroughly, for in all probability climbers of this character will remain in the same position for years. In planting dig a hole about 2 feet square, place a good layer of rotten manure at the bottom, and fill in with a compost of loam, leaf-mould, and road grit to make it porous. Great care should be taken not to injure the roots when planting. A little protection should be given on the approach of frost until they get established, after which they are capable of taking care of themselves. Good plants in 5-inch pots can be obtained cheap at the present time from any well-known nurseryman, and the following are a few good varieties: Albert Victor, Blue Gem, Duchess of Edinburgh, Lord Nevill, and Gipsy

Queen, and for covering rough unsightly places nothing can be more beautiful than *Clematis montana* and *C. Flammula*.

BRITISH ORCHIDS.

Those who are interested in this class of plants will find this to be the best time for transplanting most of the native species, and those who marked where the finest plants grew will now see the advantage of so doing. Where the soil is not suitable for them, it must be made so if success is to follow. Some kinds do best in a fairly sound loam with which lime has been freely impregnated, most of the Orchids and Ophry species liking this treatment. Others, such as *Habenaria bifolia*, grow as a rule in the shade of trees, where the soil is moist and consisting often more largely of decayed vegetable matter, as leaves, than of loam. For these equal parts of peat, light sandy loam, and leaf soil will be found a suitable mixture. They should be planted where moisture is abundant yet where the roots are not standing in water. A suitable place may be found in most gardens for wild Orchids in shrubberies, on the borders of woodland walks or drives, under the shade of large trees where few other things would thrive, in the rock garden or hardy fernery, or even in the herbaceous border, if not too much exposed to the sun. To the beginner I would say try only those known to be of easy cultivation. *Orchis maculata* (partial shade is best for this) will grow like a weed in a rather adhesive, moist loam. *Orchis pyramidalis* is one of the best for massing, the pretty heads of rosy pink flowers having an elegant and effective appearance when planted in any semi-shaded position; it delights in a good sound loam, inclined to be heavy rather than light. The Bee Orchis (*Orchis apifera*) when suitably placed is very pretty, but is more difficult to grow than those named above. The most likely place for it to succeed is on the rockery. *Ashwellthorpe, Norwich.* T. B. FIELD.

THE FRUIT GARDEN.

CORDON PEAR TREES.

WHERE a wall is available, say, 12 feet high, the single cordon answers admirably, and a wall surface can be covered in less time by this system of training than by any other. It also has the advantage—and an important one where space is limited—of giving the grower an opportunity of cultivating a selection of varieties, whereas it would not be possible to do so if horizontal or fan-trained trees were planted. But where the walls available are comparatively low the double or triple upright cordon is to be preferred. It is comparatively seldom that one comes across cordon-trained trees in the open. I should recommend that advantage be taken more frequently of this form of training for the culture of the Apple and the Pear, especially in small gardens, as they occupy so small a space and are of decorative value also, whether trained as an espalier by the side of a walk or to cover an arched trellis.

OWEN THOMAS.

PREPARING FOR STRAWBERRY FORCING.

In the culture of most plants the secret of success lies in making an early start and giving the plants a long season of growth, so that when their season of flowering and fruiting arrives they may already be strong and of mature growth, and therefore well rooted. When plants are forced into bloom out of their natural season the precaution of having them strong and well rooted becomes all the more necessary, and this is essentially the case with forced Strawberries. The earlier the runners are taken the better will be the resulting plants, and the earlier the plants are prepared for forcing so much more satisfactory can they be forced.

It is a great mistake to remove Strawberry plants directly from their outside quarters into the forcing house, for under such treatment leaf growth is excited before root action has properly commenced, and the result is a weakly growth quite unable to produce strong-flowering scapes. The process of forcing should be gradual; in fact, the more gradual it is the more successful will it be. Forcing is an artificial practice, and the more one can mitigate the artificial conditions of course so much better will the plants thrive.

The preparation for forcing will altogether depend upon the season at which ripe fruits are required. To obtain these in the month of February necessitates much more work than the production of fruit a month or two later. During the spring months the plants make much quicker progress than is possible in the dull, sunless days of November and December, and their culture then is not such an expensive matter as the very early forcing of Strawberries. Most Strawberries grown under glass for market are not forced early, but just sufficiently so to ripen them during the six or eight weeks immediately preceding the ripening of the outdoor crop. This is evidently found to be the most profitable method. Strawberries forced so as to be ripe in February and March command very high prices, but the demand for them is strictly limited. Although such good prices are not obtained later in the season, the quantities disposed of are so much greater, and the cost of production so considerably less, that growers realise a better profit upon their outlay. Exclusive of the high price of very early forced Strawberries, another reason of their limited consumption lies, doubtless, in the fact that the flavour is not of the best. We speak now of fruits that are ripe in February. The quality of forced Strawberries depends greatly upon the late winter and early spring. Cold and sunless weather will necessitate much artificial heat, and fruits produced under such conditions are naturally deficient in flavour. Given comparatively mild and sunny weather, however, Strawberries in February and March should compare not unfavourably with those grown out of doors and ripening in June. If ripe Strawberries are required in April they may be had by commencing to force the plants eight weeks before, but if ripe fruits were wanted in February it would be necessary to commence forcing quite twelve weeks previously. Cold weather and the absence of sun are, of course, responsible for the extra time involved.

VERY EARLY FORCING.

To have ripe Strawberries towards the end of February the plants must be taken under cover not later than the middle of November, and the best method is to plunge them in a mild, hot bed,

preferably composed of leaves and made up in a frame. A better place for the plants during the first few weeks could not be wished for. The bed of leaves should be made so high that the plants when plunged therein are within 6 inches or 8 inches of the glass. The bottom heat will encourage root growth, and this is of great advantage, for once the roots begin to make progress the leaf growth of the plant will soon follow. For the first week or ten days the pit or frame should be quite cold so far as the use of artificial heat is concerned; afterwards, until the plants come into flower, the temperature at night may be kept at 50° Fahr. Do not open the lights to admit air during cold, damp, or foggy weather, but only when the frame would become too hot by reason of sun heat or exceptionally mild weather. Then



AN EXAMPLE OF A TRIPLE CORDON PEAR TREE.

admit just enough air (the lights need only be pushed down an inch or two) to prevent the temperature rising too quickly, and not with the object of lowering it. Close the frame early in the afternoon, and syringe the plants at the same time. By so doing a moist atmosphere conducive to growth is produced. It will not be found necessary to give much water to the roots during the first few weeks.

A. P. H.

EFFECT OF GRASS ON TREES.

THE following note on this subject occurs in the third report by the Duke of Bedford and Mr. Spencer Pickering, F.R.S., of the Woburn Experimental Fruit Farm:—

"Our first experiment on growing grass round dwarf Apple trees was one numbered seventeen in a series of sixty experiments, each of which was made on eighteen trees, six of them being Bramley's Seedling, six Cox's Orange Pippin, and six Potts' Seedling, planted as three year old bushes in 1894. In the case of No. 17 grass was sown in 1895 to a distance of 5½ feet from the stems (5½ feet by 6½ feet in the case of Bramley), the grassed area forming a continuous strip for the six trees of each variety. The open spaces between the different varieties were grassed over in 1899, so that the whole eighteen trees are now included in one continuous strip of grassed land. The trees are dressed annually with mixed mineral manures, including nitrate of soda, in quantities estimated to be equivalent to a dressing of 12 tons of manure to the acre, and the actual area thus manured has been increased year by year, till it now amounts to the 121 square feet of ground allotted to each tree. Except as regards growing grass round them, these trees are treated in exactly the same way as those in the normal plots with which they are compared. The grass is cut two or three times in the season, and is left to rot on the ground.

"Corresponding experiments with standard Apple trees on Crab stock were started at the same time, the trees being four years old when planted and the varieties being Bramley's Seedling, Cox's Orange Pippin, and Lane's Prince Albert—six trees of each variety. The areas grassed were 6 feet by 6 feet in the case of Bramley and 3 feet by 3 feet in the other cases, there being open spaces of ground between each tree. As to the general effect produced by grass on young Apple trees the results of the last few years have brought forward nothing which can in any way modify our previous conclusions as to the intensely deleterious nature of this effect, and we can only repeat that no ordinary form of ill-treatment—including even the combination of bad planting, growth of weeds, and total neglect—is so harmful to the trees as growing grass round them; indeed, the 'neglected' trees in plot 44, which up to 1900 showed only a slight advantage over the grass-grown trees, are now decidedly superior to them both in size and vigour, whilst in the similarly 'neglected' plots of standards the trees are but little less vigorous than the normal ones.

"For a detailed numerical estimate of the deleterious effect of grass we must refer to our former reports, especially our second report, 1900, page 160. Some photographs which are there reproduced will, perhaps, give even a better idea of the magnitude of the evil effect of grass than will be obtained by the study of any numerical data. It will be sufficient to repeat here that the results of weighing some of these trees in 1898 showed that the grass-grown trees had not increased by more than about two-thirds of their original weight since they were planted in 1894, whilst their neighbours, which had been kept free from grass, had increased in weight from ten to thirteenfold. Judging by the appearance of the trees, we believe that a similar comparison at the present time would show a still greater difference, but as such a comparison cannot be made without spoiling some of the trees for further experimental purposes we have not thought fit to repeat it."

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

DISEASE-RESISTING POTATOES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It is with pleasure I give my experience concerning the best disease-resisting Potatoes I have grown during this very bad season. The following I have found quite free from disease:—Evergood (very fine), Northern Star, Sutton's Satisfaction, and The Factor. In addition, and the finest of all, is Sir John Llewelyn, a first early variety, splendid cropper, disease-resister, and grand in every way. This variety started low in price, but

very soon proved its sterling merit, and at the end of the first season's growth I was selling at five times the price per ton I gave for the stock seed obtained direct from the raiser. This, you will know well, is in direct contrast to the general state of things, as in all other cases within my knowledge a new variety has started very high and quickly dropped in value. I have now grown it for three years, and this season the demand is keener than ever. I have no hesitation in saying it is the finest Potato of its class grown. I have had some twenty-two years' experience of Potato growing, and, to please my numerous customers, grow from thirty to forty of the leading varieties on every description of soil, from strong loam to pure silt, and each season sell some hundreds of tons of each of the leading sorts; but I am glad to say I do not remember such a bad season before. It has certainly put to the test all varieties of Potatoes, and has clearly proved which are the best sorts to grow, and I shall be pleased to read the experience of other growers during this disastrous season.

Wisbech.

R. W. GREEN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have this season grown thirty-six different varieties in the gardens here in order to test their merits. Many of them failed to yield a remunerative crop, and may therefore be dismissed without further consideration. Among those which cropped well, and were free or almost free from disease, were Sutton's Seedling, Flourball, Favourite, Epicure, Satisfaction, Abundance, Windsor Castle, Supreme, and Adirondac. The best flavoured kind was Sutton's Seedling, a white-skinned pebble-shaped variety, which is somewhat yellow when cooked, but is not objected to on that account. My favourite—after the Ashleaf varieties are finished—is Snowdrop, which crops well, cooks like the proverbial ball of flour, and is of fair flavour; but this season it has suffered much from disease after the tubers were stored. For use during August I do not know of a variety to equal it. The soil here is a cold clay, badly drained, therefore one of the worst for Potatoes.

Belvoir Castle Gardens.

W. H. DIVERS.

CYPRIPEDIUM INSIGNE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The *Cypripedium insigne* figured in THE GARDEN of the 17th inst. was from a photograph of a plant grown in my house, taken and sent to you by my nephew. You state in your notes that you would welcome any remarks as to the treatment the plant had received. It was repotted in the spring of 1902 in a mixture of loam, peat, and sand, and during growing time received a little artificial manure once or twice a week. At the time it was photographed it was bearing some fifty-three flowers.

Mundham Vicarage, Chichester.

H. D. F.

THE ROSE GARDEN.

JOTTINGS ABOUT ROSES.

THE EVIL OF PLANTING SOME FRENCH-GROWN ROSES.

I WAS asked the other day to visit a large garden in order to see some beds of Tea Roses which, the owner assured me, "had not been a success." It was a garden, too, where several men were employed. Peaches, Grapes, and Figs grown to perfection under glass, and stove and greenhouse plants, as well as Chrysanthemums, all looked the picture of health. I only wish I could have said the same of the Roses.

On enquiry it appeared that the plants had been obtained from a French firm who had advertised 100 Tea and Noisette Roses at a very low price. To begin with, the selection was a most incongruous mixture, for in one bed I found side by side *Reine Marie Henriette*, with long 6-feet shoots, sprawling on the top of *Marie d'Orleans*,

whilst a poor miserable *Maréchal Niel* was growing over *Amabilis*, a very third-rate Tea, sent out by M. Lartay as long ago as 1857, with poor flimsy little pink blossoms. In the corner of another bed *Mme. Jules Grolez* and *Céline Forestier* were contesting for supremacy, but as the latter had been knifed down almost to the ground ever since it had been planted, its appearance was anything but happy. I have used the word knifed intentionally, because it would be misleading to say that such a thing as scientific pruning had ever been attempted. The head gardener, who was himself responsible for this operation, had simply gone over the plants and cut all of them down to a uniform level, regardless of habit, size, or growth, which easily accounted for the strong, flowerless shoots of *Reine Marie Henriette* and the crippled appearance of *Céline Forestier*. Of course, it was quite impossible to expect beds so unsuitably planted to be anything but ineffective, even if the individual plants had been skilfully pruned and attended to; but when the variations of habit and manner of growth are alike disregarded, as in this case, nothing but a dismal failure could be looked for. And this is by no means an unusual result with those who commence growing Roses. The first and fatal error made is in buying a collection of cheap mixed Roses from an unreliable source. Almost the first thing for an amateur or gardener to do after deciding to start Rose growing is to visit some private garden or nursery where many of the best varieties are grown, and study carefully the habit of growth of those which most strike his fancy. My experience when visiting the nurseries of the best trade growers goes to prove that the owners are always most willing to give all the information which lies within their power. If only both amateur and professional gardeners could be persuaded to go to a good nursery instead of a Rose show in order to make their selections of varieties, how much better the inestimable worth of the Rose for bedding would be revealed and appreciated.

NAMING ROSES.

Frequently I have been struck when visiting some gardens with the care and neatness displayed in labelling the Orchids, Chrysanthemums, and such like plants, whilst among the whole of a large collection of Roses not a label was to be seen. This is yet another instance of the shameful way in which the queen of the garden is treated. The question I invariably ask on seeing a collection of nameless Roses is, "How can these be properly pruned?" because it is manifestly impossible for anyone to prune Roses well unless he actually knows what variety he is dealing with. I will not deny that it is quite easy to tell many of the varieties from their habit of growth, but even this is not always to be depended upon, and one often sees deplorable results caused by ignorance in pruning. The old Hybrid Perpetuals could stand being cut hard to the ground, but if such Roses as *Grace Darling* and *Marie d'Orleans* have this treatment meted out to them each year they are never likely to be a success. Serviceable labels—both inconspicuous and imperishable—may now be had at such a very reasonable rate that it is nothing less than sheer folly to omit them.

THE WICHURAIANA HYBRIDS.

We are getting such a number of these that planters will have to exercise discrimination, because many of the sorts are too much alike. Three new varieties are being distributed this autumn by Messrs. Barbier, who have produced most of the best varieties so far. The raiser's descriptions are as follow:—

Alexandre Trimouillet.—A very strong grower, with dark green, glossy leaves. Flowers in large panicles, rosy white, with a light salmon tint. (*Wichuraiana* × *Souvenir de Catherine Guillot*).

Emile Fortepaule.—Vigorous, with long, glossy leaves; large panicles of very double flowers, measuring 2 inches to 3 inches in diameter, white, and sulphur-yellow in the middle. Parentage same as the preceding variety.

Ferdinand Roussel.—Dark green leaves of medium size; vinous red flowers, 3 inches to 4 inches across. A very good variety, and most floriferous.

Then, in addition to these, we have a host of new American varieties—The Farquhar, Edwin Mondale, Professor C. S. Sargent, W. F. Dreer, William K. Harris, Robert Craig, and John Burton. As yet I have not heard any details as to these varieties, but they are scarcely likely to be improvements upon that magnificent climber worthy Perkins. It is in standard form, that think these wichuriana Roses really excel, and everyone should most certainly try some of them in this way. The beautiful weeping standards exhibited by Messrs. Turner of Slough at the Holland House show this year were a perfect revelation to Rose lovers. I am planting Albéric Barbier, René André, Paul Transon, Adelaide Isabelle, Edmond Proust, and Elise Robichon all standards this autumn, and, in conjunction with *lagoa repens alba*, they will make quite a new feature in this garden.

CLIMBING TEA AND HYBRID TEA SPORTS.

These are some of the most valuable additions to roses of late years, though by no means always a success in every garden. I find they require most liberal treatment, and on dry soils such as mine certainly need more looking after than the regular climbers. For moderately low walls they are useful, but the best way to grow them in order to encourage floriferousness is to train them down a low wooden trellis, fixed parallel with the ground and about 18 inches above it. When trained in this manner they can be most easily protected with mats. Here is a list of the best climbing sports, all of which are well worth growing:—

Climbing Belle Siebrecht (William Paul, 1900).—A grand climber, but gets very mildewed against a wall, and is not nearly so free as its dwarf form.

Climbing Captain Christy (Ducher, 1881).—A good old hardy variety.

Climbing Caroline Testout (Chauvry, 1902).—This appears to be constant and likely to prove valuable.

Climbing Devoniensis (Pavitt, 1858).—A great grower, but tender and shy blooming.

Climbing Papa Gontier (Chevrier, 1903).—This is quite a novelty, but is so well spoken of that I am induced to include it in this list. The raiser describes it as an immense grower, with long flexible branches like those of *Reine Marie Henriette*, the flowers being the same size, shape, and colour as the type.

Climbing Niphelot (Keynes, 1890).—Magnificent on a warm wall.

Climbing Perle des Jardins (P. Henderson and Co., 1891).—An exquisite flower; requires a warm dry place against a wall.

Climbing Mme. de Watteville (Fauque Laurent, 1902).—A really splendid novelty; wall.

Climbing K. A. Victoria (synonymous with Mrs. Robert Reary, under which name it was distributed by the Dingee and Conard Company, U.S.A.).—This variety appeared simultaneously in America and Ireland, and was distributed by the well-known firm of Messrs. A. Dickson and Sons in 1898.

I have purposely omitted *Climbing La France* from the above list as it is inconstant and unsatisfactory.

TEA ROSE MRS. BERKELEY.

I cannot close these notes without referring to this exquisite variety, in order to call attention to its great freedom in autumn, as well as to the fact that it is mildew and weather-proof. Its huge shell-shaped petals and lovely fragrance entitle it to a leading position amongst bedding Roses, and throughout the month of October it has given bounteous masses of flowers. To look at them on the plants from a distance you would scarcely believe that they are only semi-double, but the petals are so firm in texture that each flower endures in beauty a considerable period. It is a good, sturdy, but not a strong grower, upright in habit, and beautiful in leaf. M. P. Bernaix of Villembanne, near Lyons, has given us many delightful varieties, but none more precious than this.

ARTHUR R. GOODWIN.

The Elms, Kidderminster.

ROSE MARIE PAVIC.

IN reply to Mr. Molyneux in THE GARDEN of the 17th inst., page 266, the correct name of this Rose is *Marie Pavic*. M. Alégaire describes it in his catalogue as "*Dédié à une dame Agrammienne*."

A. R. G.

[The lady after whom the Rose is named is a Rose amateur living at Agram in Croatia.—ED.]

A HINT TO ROSE GROWERS.

WINTER PROTECTION.

I THINK growers of Roses will do well to provide plenty of Bracken for protection this autumn. There is much sappy growth, and if, as often happens after a wet summer, a hard winter follows, a good deal of mischief will be done.

Herts.

C.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London.

SALVIA AZUREUS GRANDIFLORUS.

Mr. Amos Perry sends from his Hardy Plant Farm, Winchmore Hill, London, flowers of this beautiful plant. It is strong in growth, and the clear blue flowers are thickly produced on the erect leafy stems. It is an interesting garden flower.

POMEGRANATE AND BIGNONIA FLOWERS FROM HAMPSHIRE.

Mr. Ellwood sends from The Gardens, Swanmore Park, Bishop's Waltham, flowers of two most interesting plants, the Pomegranate and *Tecoma radicans* with the following note: "I enclose for your table flowers of *Bignonia radicans* (*Tecoma*) and *Punica granatum*, two interesting plants when they succeed in the open air. The *Bignonia* is flourishing on one of the pergolas here, and indeed makes a grand plant for that purpose. The foliage alone forms a distinct feature, and the plant flowers in September and October. With its trumpet-shaped flowers borne in clusters, which are orange-coloured, it makes a conspicuous feature in the dull autumn days. In spring the flowering shoots should be pruned back to good plump buds, thereby encouraging a vigorous growth for next season's flowers, which form on the extreme points of the young wood. Propagation is done by shoots or pieces of the root. *Punica granatum* (Pomegranate) flowers very well here from August till damaged by frosts, the bright red flowers crowning the dense Myrtle-like foliage. It should be planted against a wall and encouraged to form bushy growths, which produce the blooms more freely. It can be increased by seed, cuttings, or layers, in light, rich soil."

FORTY-THREE DISTINCT FLOWERS FROM AN ISLE OF WIGHT GARDEN.

We have received from Mrs. M. Guytherne-Williams, Belvedere, St. Laurence, Isle of Wight, specimens of forty-three distinct flowers with the following note: "I send the following flowers in the hope that they may interest some of your readers. The garden is in a rather exposed sunny situation, consisting of slopes of loamy soil on and between rocks. In many places there is scarcely any depth of soil, and a wet season seems to suit the plants better than a dry one. I allow no watering, even in dry seasons, except where

regularly given to individual plants which specially require it. None of the plants sent have been protected in winter." Our correspondent sends the following most interesting list, with a brief description of each flower:—

Lythrum alatum.—A really good garden plant.

Choisya ternata.—It is unusual for this shrub to be in full flower at this time of year.

Lasiandra macrantha.—I fear these buds will scarcely open before the middle of November, and may probably be checked by frost before flowering, as they are rather late this year.

Coronilla glauca.—A very profuse flowerer.

Polygonum baldschuanicum.—Still flowering at this late period.

Camellia Sasanqua.—Very pretty.

Plumbago capensis has been out several years in a sheltered corner facing east, but has not flowered freely before this season.

Manettia bicolor continues flowering often during the winter months.

Asparagus Sprengeri.—Quite hardy in an exposed sunny situation; very healthy and free growing.

Mimulus, established and self sown in the edges of a small stream, which it frequently threatens to block with excessive growth.

Swainsonia galegifolia.—Very free flowering in a dry, sunny place.

Bignonia grandiflora.—I should be grateful to any of your correspondents who can explain why the majority of buds of this plant fall before opening.

Salvia angustifolia.—One of the very prettiest species of this extensive genus.

Primula japonica.—An instance of the eccentricities of this unusual season.

Nerine Manselli.—This species flowers regularly every year, and is far more reliable than *N. Fothergilli*, which has frequently failed to bloom.

Nerine undulata has also flowered regularly.

Sparmannia africana always grows well, but has sometimes missed flowering; the wet season seems to have improved the plant.

Chorizema Chandleri.—This old shrub seems to be failing after four years of constant and excessive flowering.

Exogonum purga.—A very free growing and free flowering species of easy culture.

Bouvardia triphylla.—Three bushes on a hot exposed dry ledge are regularly covered with flowers during the whole summer—*B. President Garfield*, *B. flavesces fl.-pl.*, and *B. corymbiflora*; these have not been subjected to so long a trial, having only been planted out one year in the case of the first mentioned and the others for two years, but after the wet season they have made much progress and promise to establish themselves as strongly as *triphylla*.

Putoria calabrica.—A trailing plant brought from Southern Spain and quite hardy here in rock crevices; a persistent bloomer.

Mesembryanthemum tigrinum.—Like some fifteen other species here, this promises to be quite hardy on rocks.

Cassia corymbosa.—Breaks up from the roots after every winter, and flowers profusely in a sunny situation.

Tulbaghia violacea flowers throughout summer and autumn.

Agathaea colensis.—It is not safe to trust to unprotected plants for stock, although they frequently survive the winters.

Leucanthemum nipponicum.—A most robust free flowering and useful plant.

Diplacus glutinosus.—Quite hardy and often self sown.

Lagunaria Patersoni.—Now about 6 feet high, growing rapidly, and flowering very freely from August to November.

Myrtus communis.—The Myrtles have flowered more than ever abundantly this summer.

Cyclamen persicum.—Just coming out, a few samples enclosed.

Kniphofia multiflora.—Spikes too large for the box and scarcely yet out; one sent as a sample.

Morina longifolia.—A very late flower sent; seed ripened and already sown.

Polygala oppositifolia.—This shrub is never without flowers in winter or summer.

Abelia rupestris.—Doing very well after two years out.

Boukera triphylla.—A scrophulariaceous shrub, the last of many flowers fell a few days ago.

Sollya heterophylla, *Genista racemosa*, *Eleagnus macrophyllus*, *Rosa bracteata*, and *Amaryllis belladonna*.—Very late.

[We hope some one will explain the cause of the *Bignonia* buds dropping.—ED.]

LA FRANCE AND AUGUSTINE GUINOISSEAU ROSES.—THE SPORT.

"C." (Herts) sends flowers of these beautiful Roses, and the following letter which accompanied them will interest rosarians: "I send you two Roses, both from the same plant, and you will see that one is distinctly La France and the other one Augustine Guinoisseau. The plant is on its own roots, and in summer the flowers are always of the latter type, but in autumn it has frequently thrown both. I believe Augustine Guinoisseau was a sport from the former, so it is a case of throwing back to the original. I have seen with surprise in two or three instances where lists of autumn Roses have been given that Augustine Guinoisseau has not been included. Here it is the autumn bloom *par excellence*, and never fails, though we have by no means ideal conditions for Rose growing—rather shallow soil on chalk, and on exposed situation nearly 400 feet above sea level."

SWEET PEAS IN LATE OCTOBER.

Mr. Hugh Aldersey sends from Aldersey Hall, Chester, a remarkable gathering of Sweet Peas for the season; the flowers were exceptionally beautiful in colouring and very large, a bunch that brought a ray of summer into a gloomy October day. It is interesting to know that the flowers were raised at Aldersey Hall. We well remember the previous flowers, and thought them finer than any other Sweet Peas we have either seen or received this summer. Mr. Aldersey's note is as follows: "On June 9 last I sent you some bunches of Sweet Peas, the result of cross-fertilisation. I now send some flowers from the same plants, which have been in bloom since May, in spite of the fact that I allowed them to run to seed. Cross-fertilisation certainly adds vigour to the plants and apparently lengthens their period of flowering, as the named varieties, though sown later, have been over for a long time. Plants from pots sown in autumn may be planted out early with safety and bloom earlier than those sown in spring."

FICUS REPENS FRUITING.

Mr. Strugnell sends from the Gardens, Rood Ashton, Trowbridge, fruits of *Ficus repens*, which we hope to illustrate shortly, with the following note: "For furnishing the walls of stove or greenhouse, and particularly those inclined to dampness, and, therefore, difficult to maintain in a clean and presentable state, this creeping Fig is a really serviceable plant. Though so familiar for such purposes, it would seem that few have seen its fruits. It is kept regularly sheared, which is a much-needed necessity, and therefore the plants cannot fruit. The actual fruiting growth assumes quite another character, being so much larger and coarser in leaf and branch. That from which the fruit sent was gathered has been growing for two or three years and kept restricted only by pruning, so as to confine it within reasonable limits, and trained to wires separated from the wall. It required two years before it produced a fruit crop from the first issue of the fruiting shoot, and even now few are given. Though many have seen this during the past three years only one among the interested visitors can recall an instance of its fruit-bearing character, so that it cannot be regarded as anything less than of rare occurrence. It is only useful when a strong shoot appears to retain it and allow it to grow unchecked for a time—perhaps two years—to give the desired result."

[Notes upon several interesting contributions to the "Editor's Table" have been left over until next week owing to pressure upon space.—ED.]

OBITUARY.

WILLIAM BEALE.

We much regret to announce the death of Mr. William Beale, gardener to E. A. Hambro, Esq., Hayes Place, Hayes, Kent. The death of Mr. Beale will come as a surprise to those who knew him, for at the last Drill Hall meeting, on October 13, he had an exhibit of Black Hamburg Grapes, to which a silver medal was awarded. Mr. Beale was at the Drill Hall and apparently in his usual health. He recently took cold, however, and pneumonia supervened, with the result that Mr. Beale died on Sunday last. Mr. Beale's father was formerly head gardener at Hayes Place, and Mr. William Beale worked there for some years. He was formerly in Baron Rothschild's garden in Vienna. Mr. Beale was only thirty-eight years of age, and leaves a widow and one child. The funeral took place on Tuesday.

It is with great regret that I record the death of my excellent friend Mr. W. Beale, who died after a very short illness (only a few days' duration) on the morning of Sunday, the 25th inst., at the early age of thirty-eight years. Mr. Beale was well known and much respected by high and



THE LATE MR. WILLIAM BEALE.

low, not only in the neighbourhood in which he lived, but in the horticultural world here and on the Continent. His cheerful disposition and great professional knowledge, which he was always glad to impart to all who cared to know, made him many friends, and, speaking from my own experience, I have rarely found a man more genuine and so ready to help. Mr. Beale gained his extensive knowledge as an apprentice and journeyman in some of the principal English nurseries. After that he went for four years to the famous establishment at Ferrières, near Paris, and thence to Baron Rothschild's garden at Vienna for seven years, where he spent some of the most happy years of his life. About four years ago he succeeded his father at Hayes Place, Hayes, Kent, under E. A. Hambro, Esq., serving this gentleman faithfully till the time of his death. He was well known at the Royal Horticultural Society's Drill Hall meetings and shows, and took many prizes as a grower of Grapes and fruit generally (taking his last medal only on the 13th inst. for a fine lot of Grapes), also hardy flowers and stove and greenhouse plants. Under his appreciative and kind employer he formed one of the most

unique collections of alpine, Primulas, and other hardy plants. His success was due to his untiring energy, thoroughness, and conscientiousness. His loss is deeply mourned by his young wife, as well as by his parents, sisters, and many friends. He was buried in the churchyard of Hayes on Tuesday last.

G. RUTHER.

NOTES FROM THE MARKETS.

BEGONIA GLOIRE DE LORRAINE.—Several market growers are now growing this useful Begonia, and already it may be seen in the market. It is rather early for there to be any great demand for it, and the prices are consequently rather low. The Turnford Hall variety may also be seen, and the price has come down to quite a reasonable figure.

Verbena Miss E. Willmott.—Several growers have grown this well in pots this season, and even on October 20 some good plants were in the market. It is certainly a most effective plant for decorations, and private growers should follow the example of the market growers. It is very pretty in the conservatory.

Chrysanthemums.—Mr. G. Shawyer of Cranford who grows for Covent Garden Market, has been cutting some good early varieties. Although exclusively a market nursery, Mr. Shawyer has given some attention to raising new varieties, and has been very successful, those that he has been growing this season being chiefly sorts raised by himself. Some of these received certificates from the National Chrysanthemum Society last season, and as grown this year they have proved fully worthy of the distinction. Of those noted Black Prince was one of the best, being of a rich crimson, with gold reverse, and flowers of good size and substance; Murillo, soft rosy pink; Miss E. Miller, deep yellow; Nellie Blake, a bronzy red, something after the old favourite Source d'Or, but a little deeper in colour and much earlier; Autumn Sun, yellow, with a bronzy red shading; and some yet unnamed seedlings were very promising. Mr. Shawyer disbuds and gets from six to nine good blooms on a plant. He has been sending about 300 dozen blooms to Covent Garden Market daily, and these have made from 1s. to 2s. 6d. per dozen.—A. H.

Proposed flower market for Dundee.—A proposal of considerable importance to the florists of the Dundee district is at present under consideration, and is likely to meet with acceptance. It is that a portion of the Craig Street Market should be set apart as a flower market. The question has been under the consideration of the market sub-committee, and a meeting has taken place between them and the florists. The latter generally approved of the plan submitted for their consideration, but a decision is not likely to be taken for some time.

SOCIETIES.

CROYDON HORTICULTURAL SOCIETY.

At their rooms on Tuesday, the 20th inst., a large assembly of members listened to a highly practical paper on "A Year's Work in the Vinery," read by Mr. W. Taylor, Tisbury Lodge Gardens, Forest Hill, who is a grower of considerable eminence in the horticultural world. To illustrate his paper he brought a collection of Grapes, including what he considered to be the best twelve varieties grown, and the splendid clusters created admiration and appreciation from all present, which showed the master hand of a skilled cultivator in producing such specimens. The lecture commenced with the operation of making up the vine border, details of which he gave most fully, as also the different modes of structure each vine might be, together with the heating apparatus required. Following the establishment of Vines in the vinery, he passed on to the treatment required in each month of the year, so that from the commencement of January to the end of December the methods he adopted were expounded by him most fully for his audience to profit by. A discussion by some of the members followed, and to questions asked Mr. Taylor replied fully. At the conclusion, the chairman (Mr. W. J. Simpson) proposed a very hearty vote of thanks to Mr. Taylor, which was carried with applause.

The next meeting is on Friday next, November 4, when Mr. R. B. Leech, Wood Hall Gardens, Dulwich, will lecture on "Fruit Bottling," and to this lecture the lady friends of members are invited.

ROYAL HORTICULTURAL SOCIETY.

THERE was an excellent display of flowers at the Drill Hall on Tuesday last, and Orchids contributed most largely; these were shown extensively, and many choice ones were to be seen. Chrysanthemums, stove plants, Pelargoniums, tuberous Begonias, and Asters were all well shown, making an unusually fine display for so late in the season.

ORCHID COMMITTEE.

Present: Harry J. Veitch, Esq. (chairman), Messrs. James O'Brien, J. G. Fowler, H. Little, J. Wilson Putter, W. H. White, H. A. Tracy, W. H. Young, W. Boxall, J. W. Odell, F. J. Thorne, M. Gleeson, G. F. Moore, F. G. Ashton, A. A. McBean, Francis Wellalee, E. Hill, James Douglas, Norman Cookson, Jeremiah Colman, Walter Cobb, H. M. Pollett, & B. Crawshaw, H. Ballantine, and W. A. Blinay.

Messrs. Charlesworth and Co., Heaton, Bradford, Yorks, showed an admirable lot of Orchids, all well grown and amply flowered. *Oncidium Fortesii* and *O. varicosum* made a showy background. *Cattleya labiata* was largely shown, and other Orchids included were varieties of *Odontoglossum crispum*, *Laelio-Cattleya lundiana aurifera*, *L.-C. haroldiana*, *Cattleya Iris*, *Laelia prestans*, *C. Fernand Denis*, *C. Mrs. Pitt*, *C. chamberlainiana*, *C. Nestor*, *C. Lottie*, and *L.-C. leucomela*, making a charming display of hybrids of beautiful coloring. *Miltonia bleasana grandiflora*, *Brassia lawrenceana longissima*, *Cypripedium Charlesworthii*, *C. insignis Dorothy*, *C. Hitchinsii* (Charlesworthii x *insigne*), *C. Ulton* (*varicosum* x *sanderianum*), and others were also shown; indeed, the display was full of really good things. Silver-gilt Flora medal.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited an excellent display of *Cattleyas*, *Laelias*, and *Laelio-Cattleyas*. *Cattleya labiata* was largely shown, and others prominent were *C. Mrs. J. W. Whiteley*, *L. digbyana purpurata*, *L.-C. Hermes*, *C. Bactia*, *L.-C. Nyas*, *L.-C. Decia*, *C. Chloe*, *L.-C. blancheyensis* var., *C. Mantlinii*, and *L.-C. Bryan*, altogether a very fine display of hybrid Orchids. Silver-gilt Flora medal.

Baron Schröder, The Dell, Egham (gardener, Mr. Ballantine), exhibited a collection of very fine Orchids, the plants splendidly flowered. *Dendrobium schröderianum* (original variety), *D. s. alba*, *D. farinosum*, *Odontoglossum crispum sanderianum*, *Cattleya labiata Dell* variety, *L.-C. Mme. Chas. Maron*, *C. bowringiana* (one plant bearing six racemes), *L.-C. haroldiana*, *C. vigeriana*, and *L.-C. Tiresias* were among the best. Silver-gilt Flora medal.

The group from Jeremiah Colman, Esq., Gatton Park, Epsom (gardener, Mr. W. P. Bond), contained numerous very good *Cattleyas*, for instance, *C. labiata*, *C. l. corulea*, *C. bowringiana*, *L. Macina*, *C. labiata illustre*, *C. l. Master J. Colman*, *C. l. venosa*, *C. Mantlinii*, and *C. aurea*. *Laelia Fernand*, *Odontoglossum Mutus*, *Maderavallia Daviellii*, *M. leucata*, *Lycaste Skinneri* alba; some good *Cypripediums* were also shown in this interesting display. Silver-gilt Flora medal.

Mr. James Cypher, Cheltenham, showed a group of Orchids that contained some very good *Cypripediums*, notably *C. insignis Sanderse*, *C. l. Balle*, *C. l. Ernestii*, *C. l. aureum*, *C. l. sylhetense*, *C. l. Harefield Hall* variety, *C. leucanum virginale*, *C. T. B. Haywood*, and others. *Cattleya Mantlinii*, *C. labiata*, *Odontoglossum grande*, *Oncidium kramerianum*, and *Dendrobium Phalenopsis schröderianum* were also very well shown. Silver Flora medal.

Messrs. Hugh Low and Co., Enfield, N., showed fine *Phalenopsis Aphrodite* (amabilis) and *P. leucarrhoda*. The plants bore splendid leaves and racemes. Other notable Orchids in Mr. Low's group were *Cypripedium Deadmonia* (*G. Goweri* x *C. niveum*), *C. insignis Laura Kimball*, *Cattleya Labia Pride* of Southgate, *Cymbidium affine*, *Oncidium venosum*, *O. Rogeri*, *Burlingtonia venusta*, *Cattleya bowringiana*, *L. Macina*, and *Oncidium ornithorhynchum*. Silver Flora medal.

Captain Holford, C.S.I., Tetbury, Gloucester (Orchid grower, Mr. Alexander), was given a silver Flora medal for a group of choice Orchids. *Cattleya Mantlinii nobilior*, *C. aurea*, *C. Mrs. J. W. Whiteley*, *C. Fernand Davis*, *Laelio-Cattleya Swartzii*, *Cypripedium laurencianum* x *calicum*, *C. Milo Weston* var., *C. Charles Richman*, *C. Niohe*, *C. Barrades*, *Vanda corulea*, *Odontoglossum crispum-harryanum*, and *Zygocotax wiganianus superbus* were among the best. Silver Flora medal.

Messrs. Sander and Sons, St. Albans, in their group of Orchids exhibited numerous good *Cypripediums*, such as *C. actens*, *C. arthurianum*, *C. triumphans*, *C. lamontanum*, *C. Miss Louise Fowler*, and *C. Almosa*. *Laelia elegans schilleriana*, *Laelio-Cattleya blancheyensis*, *L.-C. Acis*, *L.-C. lunulosa*, *L.-C. illustre*, *Cattleya Miss Williams*, *Zygocotax maculatus*, and *Cymbidium affine* were also well shown. Silver Flora medal.

H. S. Goodson, Esq., Fairlawn, West Hill, Putney, exhibited a group of Orchids that included *Vanda corulea*, *Dendrobium formosum*, various *Cypripediums*, *Cattleya labiata*, *Oncidium varicosum*, and others. Silver Banksian medal. *Cattleya labiata Fieldenii*, a supposed natural hybrid, flowered from a small importation sent from South America in 1903, was shown by Mrs. Thomas Fielden, Tadcaster (gardener, Mr. H. J. Clayton). A flower of *Cattleya granulosa aurea* was also sent by Mr. Clayton.

Cattleya Fabia var. *Peetersii* was finely shown by M. A. A. Peeters, Brussels. It is a hybrid between *C. aurea* and *C. labiata* Peetersii.

Mr. H. A. Tracy, Twickenham, showed *Cattleya labiata* *R. Rider Haggard*.

Cypripedium insignis montanum magnificum and *C. l. The Queen* were well shown by G. F. Moore, Esq., Bourton-on-the-Water (gardener, Mr. Page).

H. J. Elwes, Esq., Colebourne (gardener, Mr. Walters), showed racemes of *Habenaria carnea*, cut from a plant with eight racemes. *Calanthe veratrifolia* x *Stevensii*, *Burbridgea nida*, and *Arundina chinensis* with reed-like growth and smaller flowers than *A. bambusifolia* were also shown by Mr. Elwes.

Sir Trevor Lawrence, Bart., Burford, Dorset (Orchid grower, Mr. White), sent *Dendrobium amplum*, *Gomesa* (sp.)

and *Celogyne fuscens*, also *Cattleya Mrs. Endicott* and *Cattleya Ella*.

In a miscellaneous group of stove plants Messrs. B. S. Williams, Holloway, showed *Cattleyas*, *Cypripediums*, and other Orchids.

Cut racemes of *Renanthera (Vanda) Lowii* were well shown by Gurney Fowler, Esq., South Woodford.

NEW ORCHIDS.

A first-class certificate was given to *Laelio-Cattleya gottiana regale*.—This is a handsome and finely coloured variety, although some experts were inclined to think it hardly sufficiently distinct to merit a first-class certificate. The broad, frilled lip is rich purple-crimson, and the long throat is partly lined with yellow; sepals and petals are buff and purple, buff predominating in the sepals. From Sir Trevor Lawrence, Bart., Burford, Dorset (Orchid grower, Mr. White).

Phaio-Cymbidium Chardwarense.—This is a remarkable flower, in that it is a new bi-generic hybrid, between *Cymbidium giganteum* and *Phaius grandifolius*. So far as can be judged from the appearance of the flower it differs little from *Phaius*. The colour of petals and sepals is yellow, tinged with brown. The lip is heavily lined with deep reddish-brown upon a yellow ground. The plant is vigorous and of *Phaius*-like growth. From G. F. Moore, Esq., Chardware, Bourton-on-the-Water (gardener, Mr. Page).

Laelio-Cattleya haroldiana John Bradshaw.—One of the most handsome *Laelio-Cattleyas* yet shown. Not only is the lip richly coloured but the petals also. *Laelia tenebrosa* and *Cattleya hardyana* are the parents. The lip is large, a rich deep velvet purple. The petals are beautifully tinged with purple upon a buff yellow ground; the yellow sepals are faintly tinged with purple also. From John Bradshaw, Esq., The Grange, Southgate (gardener, Mr. G. Whitelegge).

Awards of merit were given to

Cattleya Gauthierii.—This is a very attractive flower of unusually delicate colouring. The sepals and petals are pale lilac, tinged with buff in the centre, and the flat, broad lip is purple, creamy white at the base and in the throat. The parents are *C. leopoldiana* and *C. Schröders*. From Baron Schröder, The Dell, Egham (gardener, Mr. Ballantine).

Cattleya Fabia var. *Mary de Warrin*.—*C. labiata* alba and *C. aurea* are the parents of this remarkably pretty hybrid. The sepals and petals are pure white, and the lip is a blending of rich pale purple and white, with the yellow of the throat running into it. The flower is of splendid form. From M. A. A. Peeters, Brussels.

Cattleya F. W. Wigan Peeters variety.—*C. schilleriana* and *C. aurea* are the parents of this variety, a distinct and handsome flower, with stiff buff sepals and petals tinged with purple, and a large, handsome lip, rich purple, marked with brown and yellow at the base of the throat. From M. Peeters. Award of merit.

A botanical certificate was awarded to *Celogyne fuscens*, shown by Sir Trevor Lawrence, Bart., Burford, Dorset (Orchid grower, Mr. W. H. White).

FRUIT AND VEGETABLE COMMITTEE.

Present: George Bunyard, Esq. (chairman), Messrs. J. Cheal, George Woodward, T. W. Bates, S. Mortimer, Alex. Dean, Henry Ealing, George Keif, Horace J. Wright, G. T. Miles, C. G. A. Nix, J. Jaques, G. Reynolds, F. Q. Lane, J. Willard, G. Norman, George Wythes, and A. H. Pearson.

Mr. J. Ambrose, Cheshunt, exhibited the new Grape Melton Constable Seedling in excellent form. Cut bunches and also fruiting pot Vines were shown. The two bunches cut from the mother Vine weighed 7½ lb; the berries were very large, well coloured, and the bunches splendidly filled. This new Grape is not yet ripe, so it was not shown before the committee. This Mr. Ambrose hopes to do later; he considers it to be at its best about Christmas. It certainly appears to improve by keeping; the flavour is very sweet, skin firm, and the Grape travels well. As previously stated, the parents are Lady Hastings and Gros Colmar. Mr. Ambrose also showed some fine Blenheim Orange Apples, cut Roses, and cut Carnations.

A vote of thanks was given to Apples Colonel Vaughan and Blenheim Orange from Tulise Hill.

A cultural commendation was given to some fine Celeriac from Mr. J. Chamberlain, gardener to S. Hellbut, Esq., The Lodge, Holyport.

Mr. J. Fritchard, Westgate Street, Gloucester, showed Marrows, and Mr. E. J. Vokes, King's Worthy, Winchester, seedling Apples.

FLORAL COMMITTEE.

Present: W. Marshall, Esq. (chairman), and Messrs. C. T. Drury, H. B. May, James Walker, E. Dean, John Green, J. F. McLeod, J. Jennings, William Howe, C. R. Fielder, Charles Dixon, J. A. Nix, Charles Jeffries, R. C. Nutcutt, H. J. Cuthbush, Charles E. Pearson, William Cuthbertson, H. J. Jones, E. H. Jenkins, W. J. James, Charles E. Shea, George Nicholson, J. Fraser, Edward Mawley, R. W. Wallace, and E. T. Cook.

Probably one of the most sumptuous and attractive of exhibits was that of cut zonal Pelargoniums from Messrs. Cannell and Son, Swanley. Trusses, tips, and colour, each and all were superb, and to this we add that with a half-dozen trusses to each vase the table of these valuable winter flowers constituted both an attraction and a feast. Well known as are Messrs. Cannell as growers of this class, it is only in justice that we say they have rarely, if ever, set up so fine a lot. We take a few of the finest of this fine lot: The Si-dar, crimson-scarlet; Princess of Wales, cerise-scarlet; Barbara Hope, pink; Mrs. Charles Pearson, deep pink, scarlet shaded; The Mikado, cerise-scarlet; Prince of Orange, very fine; Mark Twain, pink-scarlet, with whitish spots; Lord Strathcona, crimson, white eye; and Chaucer, rosy pink, with salmon eye. Mrs. George Cadbury, a fine pink; Lady Roscoe, soft rosy pink; and Countess of Dudley, crimson, with white eye and lines radiating therefrom, were other good kinds. The same firm set up boxes and vases of Chrysanthemums in variety. Of those in the large-flowered class *Alfriston* is fine in crimson and gold; *Miss M. Ware*, terra-cotta; and S. T. Wright, maroon and

gold. Some single kinds were also shown, and of these *Mary Anderson* and *Paris Daisy* were the best. Silver Flora medal.

Messrs. Barr and Son, Covent Garden, exhibited *Kniphofia parviflora*, with pale yellow flowers, and *K. Clota*, a red-scarlet kind with long protruding anthers.

Messrs. William Cuthbush and Son, Highgate, showed a mixed group of *Crotons*, *Dracenas*, *Cordylines*, *Palms*, *Aralia elegantissima*, small Orange trees in fruit in pots, *Dracena Victoria*, and Tree Carnations Mrs. Brooks and William Cuthbush, cerise-scarlet. An effective group of useful material.

Mr. Norman Davis, Framfield, Sussex, showed *Chrysanthemums* in his own inimitable way. Not many kinds, but those shown were fine characteristic examples. Bold vases occupied the centre, and with huge blossoms overhanging had a fine effect. Boxes of such as *Miss Mildred Ware*, a terra-cotta shade, very fine; J. R. Upton, rich golden; Mme. P. Radaelli, white; General Hutton, bronzy gold; Mrs. W. Mease, softest yellow or cream, very beautiful; Beauty of Leigh, deep golden yellow; Lady Pearce, a novelty for 1904, ivory white with greenish eye, very fine; Mme. Carnot, pure white and of fine size; F. S. Vallis, a finely-formed drooping Japanese of rich yellow colour, with *Miss Olive Miller*, pink, were among the best. *Enallias*, *Palms*, *Crotons*, and *Ferns* interspersed here and there materially assisted the grouping of a really meritorious lot of flowers. Silver-gilt Flora medal.

Mr. H. B. May, Edmonton, showed a group of *Dracenas* in many kinds, arranging them on the floor. We take *Monarch*, *Lord Roberts*, *Diadem splendens*, *Perfection*, *Alsace Lorraine*, and *Triumph* as among the best of the coloured forms, while *Lindenii cannelifolia* represented the green and striped forms. Dr. Hanell is also a green-leaved sort in the way of *D. congesta*, but with broader foliage and a more compact growth. Silver Banksian medal.

Mr. D. C. Guthrie, East Haddon Hall, Northampton, exhibited *Begonia Mrs. Mary Guthrie*, a tuberous kind apparently of a low compact growth, and with large salmon-pink flowers in profusion. A large basket was shown.

Mr. W. J. Godfrey, Exmouth, Devon, had a large exhibit of *Chrysanthemums*, many very fine. Making Hero, *Miss Mildred Ware*, fawn or terra-cotta; Queen Alexandra, bronzy orange; H. E. Hayman, orange; Lord Alverstone, deep maroon and gold; *Miss Olive Miller*, lilac-pink; F. S. Vallis, yellow; Exmouth Rival, rich velvety maroon, intense colour; and Mrs. J. P. Bryce, white incurved. A basket of Carnations also came from Mr. Godfrey. Silver Banksian medal.

Some scarlet Tree Carnations were shown by S. Morris, Esq., Writam Hall, Norfolk (gardener, Mr. Henley). *Adelaide* and *Elizabeth*, the former of a rather bushy habit, the latter tall and thin.

A fine batch of *Begonia Gloire de Lorraine* and *G. de Lorraine* alba came from Mr. G. Lange, Hampton, Middlesex. Of the white there were some two dozen large specimens, and rather less of the original form. A really fine exhibit. Silver Banksian medal.

Mr. H. J. Jones, Lewisham, staged an admirable lot of *Chrysanthemums*, both in large vases with foliage and on boards. There were large and small-flowered kinds; the arrangement admirable. Some good ones are *Lady Acland*, gold; M. M. Ware, very fine; Maude du Cros, soft yellow (see awards); Lady M. Conyers, deep pink; Master Seymour, crimson and gold; Hon. Mrs. Acland, fine incurved yellow; Henry Perkins, chestnut; Edith Smith, ivory-white; George Lawrence, red-orange; and M. Waldeck Roussau, crimson and buff. Baskets of decorative kinds, vases of singles, and other articles were filled with capital material. A large collection of *Michaelmas Daisies* was also shown by Mr. Jones. Silver Flora medal.

Messrs. W. Cuthbush and Sons, Highgate, showed a fine group of hardy things such as *Anemones*, *Pentstemons*, *Asters* in variety, *Polygonum amplexicaule*, *Lobelia*, *Phloxia frutescens*, *Polygonum vacinifolium*, *Crocus hyemalis*, white; *C. vitellina*, palest mauve; *Primula megalophylla*, *Leucolium autumnale*, very charming; *Romneya Coulteri*, *Tricoma*, *Oxalis lobata*, yellow; *Moraea longifolia*, and a large variety of outdoor *Chrysanthemums*. Silver-gilt Flora medal.

Messrs. J. Ambrose and Son, Cheshunt, Herts, set up a beautiful exhibit of *Roses*, *Tea* and *Hybrid Tea* largely. These, interspersed with *Lilies*, *Lily of the Valley*, *Spiraeas*, and *Ferns*, made a goodly show. In another direction Mr. Ambrose had stands adorned with *Roses* and *Carnations*, and with *Heaths*, *Cyclamens*, and the like a good effect was secured.

A large assortment of *Lobelias* of the *L. syphililitica* group was shown by Mr. Ladhams, Southampton. Some twenty-three varieties were staged in colours varying from blue and purple to white, scarlet, crimson, pink, &c.

Messrs. William Bull and Sons, Chelsea, showed *Begonias* of the foliage group, with *Davidsonia pruriens*, *Diffrachias*, *Dracena goldiana*, and similar plants.

Mr. J. Russell, Richmond, contributed a large group of shrubs in pots. *Veroniceas*, *Bamboos*, *Osmanthus*, variegated *Privets*, *Aucubas* in variety and in fruit, *Skimmia Formanii* in excellent fruit, and many more, a capital group of useful hardy plants. Silver Banksian medal.

Messrs. W. Wells and Co., Redhill, had arranged on the left hand side of the entrance a remarkable exhibit of *Chrysanthemums*, in which large and medium sized flowers were freely interspersed. Of the exhibition kind *Maynell*, a fine maroon-crimson with old gold reverse is superb; G. H. Kerslake, white; Mrs. Pockett; Mr. T. Carrington, deep mauve; Exmouth Rival, crimson; S. T. Wright, maroon; *Pantia Ralli*, bronze; Lord Alverstone, crimson; Mme. L. Chevrant, beautiful pink; Mrs. W. Duckham, rich yellow; *Mary Ingils*, bronzy; and *Vivand Morel*, very fine. Many beautiful pot-grown singles and light decorative kinds completed a really splendid bank of these attractive flowers. Silver-gilt Banksian medal.

Messrs. Veitch and Sons, Chelsea, staged a nice lot of winter-flowering *Pelargoniums* in pots. The more showy are *Chaucer*, *Dryden*, *Charles Maison*, fine crimson; Mrs. Charles Pearson, Mrs. Brown Potter, rose; Mrs. G. Cadbury,

pink; Mary E. Wilkins, white; E. Bidwell, intense scarlet. A fine blue-flowered plant of dwarf habit is *Dedalacanthus parvus*, and a charming bit of blue is *Salvia Pitcheri*. The winter-flowering *Begonias* *Agatha*, *Ideale*, *Julius*, and *Mrs. Heal* were in great force, forming a rare bank of colour. Silver Flora medal.

Tree Carnations from Messrs. H. Low and Co. included *Ethel Crooker*, pink; *Norway*, white; *Floriana*, pink; and *Mrs. T. W. Lawson*. *Fairmaid* is a soft pink flower, very pleasing.

Griffonia hyacinthina was shown by Mr. E. Kromer, Bandon Hill, Croydon, the inflorescence containing some dozen flowers, the blue and white in great contrast.

Aphelandra blanchetiana is a distinct plant from Messrs. William Bull and Sons, Chelsea.

Begonia manicata variegata cristata was shown by Messrs. Sander, St. Albans.

In spite of the torrential rains and other impediments to good open-air flowers, Messrs. T. S. Ware, Limited, Feltham, Middlesex, staged a remarkable lot of Dahlias, these embracing excellent Cactus flowers in many varieties, quite good in colour, and in a large degree characteristic. Pompoms and good single-flowered kinds also were in plenty, while the imposing character of the arrangement combined with the plenitude of blossoms made up a most worthy display of these things for so late a date as October 27. Light Bamboos, Grasses, and Palms, with here and there sprays of autumn foliage, gave a finish to the whole.

NEW PLANTS.

Begonia His Majesty.—A fine variety that rightly may belong to the fine foliage section of *Begonias*, of which B. Rex is typical of many. We are not sure, however, that the sort now referred to really belongs to the latter section, though it is certainly a well-marked kind. The handsome leaves are about 6 inches broad and 9 inches long, green starred to the centre, the remainder of a bronzy red with green body colour to a full margin of a reddish hue. Exhibited by Messrs. Sander and Co., St. Albans. Award of merit.

Begonia Our Queen.—A most fascinating variety, the colour combination remarkable. The ovate heart-shaped leaves are acutely pointed, the chief colour an olive green distinctly bordered with irregular rows of pinkish dots, outside which a sea green band is noted, the outer margin of a dark velvety shade, and over all a lustrous hue such as is rarely seen. The tone of colour varies with the age of the leaf individually; it is therefore difficult to accurately describe the charm that prevails. From Messrs. Sander and Co., St. Albans. Award of merit.

Erica gracilis nivalis.—This is a white form of E. g. autumnalis, and as such distinct from that other white form known as E. g. a. alba. In other respects the plant is identical with the type, and will therefore form a useful addition to this small-flowered group. Shown by Messrs. Gregory and Evans, Sidcup, Kent. Award of merit.

Chrysanthemum Miss E. Holding (incurred).—The colour is of a soft lilac-pink tone, the flower moderate in size and compact. From Mr. Seward, Hanwell. Award of merit.

Chrysanthemum F. S. Vallis.—A flower of fine proportions and beautiful finish. It is of the Japanese type, having slightly drooping florets, the clear rich yellow of the petals of a glistening character. The florets are rather narrow and very numerous. Exhibited by Mr. W. J. Godfrey, Exmouth; and by Mr. Norman Davis, Framfield, Sussex.

Chrysanthemum Maude du Cros.—If size is an item for satisfaction in the show *Chrysanthemum*, it is undoubtedly contained in this kind in no small degree. The huge heads of flowers are of the largest size, the florets soft, clear yellow in colour, very long and overlapping. Obviously the variety is strong. It is worthy of remark that this self yellow kind and *Miss Mildred Ware*, a shade between pale fawn and terra-cotta, were raised from the same head of seed. Mme. Carnot being one of the parents. The above was shown by Mr. H. J. Jones, Lewisham, on behalf of the raiser Mr. A. du Cros (gardener, Mr. A. Bullimore), the stock passing to Mr. Jones for distribution. Award of merit.

Nephrolepis Westonii.—A very beautiful and useful addition to this class. The slightly arching fronds are of a plumose character, the pinnae some 3 inches long and strongly crested at the tips. A feature of the plant is the remarkable way it is furnished at the base by means of the small shoots or runners. In this way a pot of 5-inch diameter is ample for a plant of large size. It will in all probability make an invaluable pot plant for market use. Shown by Messrs. Cragg, Harrison, and Cragg, Heaton. Award of merit.

THE LADY WARWICK COLLEGE.

On the 24th inst. the Lady Warwick College, which now has its headquarters at Studley Castle in Warwickshire, was opened by the Countess of Warwick, who also presided at the council meeting held the same day. The new home of the college is much more suited to its needs than were the hostels at Reading, where the work was much hampered by want of proper accommodation, restricted space, and the heavy rates and taxes. Studley Castle has been acquired by the college authorities, together with some 340 acres of land, most of which, however, is at present let off as farm land, some 30 acres to 40 acres being reserved for college purposes. Fresh land can, of course, always be taken in as required. Studley Castle is delightfully situated upon rising ground about two miles from Studley Station, on the line between Birmingham and Evesham, and midway between Redditch and Alcester. The grounds are finely wooded, and, on the occasion of our visit there on Saturday last, we had an opportunity of noting the conifers, of which the pinetum contains some fine specimens, and the general collection of trees and shrubs in the arboretum, all of which are legibly and correctly labelled, and cannot fail to be of great teaching value to the students. There is a good walled-in fruit and kitchen garden, where, however, the fruit trees are suffering from several years of neglect. These it is proposed to graft with good varieties, and we may

confidently hope before long to see them bearing satisfactory crops of fruit. As the term only commenced about a month ago there has not yet been time to do very much towards putting the neglected gardens in order, and especially as the continual rains have made the clay soil at Studley practically unworkable.

Much, however, has been done to the houses; they have been repaired, painted, glazed, &c., old fruit trees rooted out, and the borders prepared for new ones. The houses devoted to plant culture were full of seasonable flowers, among which *Chrysanthemums* figured largely. There were several hundreds of these, bush plants, bearing a profusion of bloom, and those restricted to a few stems with blooms that would have done credit to an exhibition board. The stove house was particularly bright and well kept, foliage and flowering plants in great variety showing skilful culture. The conservatory, too, was gay with *Salvias*, *Pelargoniums*, and other plants in flower. That the students enter thoroughly into the work of a garden and do not shirk the practical part was made evident to us by a number of Peach trees in large pots. These had just been repotted, and the work, carried out by the students, would hardly have been found fault with by the most exacting of head gardeners. Here we might mention that the duties of head gardener are carried out by Miss May Crooke, who is also sub-warden of the college. Miss Crooke is imbued with so much enthusiasm for her work that, combined with the practical instruction imparted by Mr. W. Igoulden, who visits the college weekly, the best results are almost a certainty. The warden of the college is Miss Bradley, and she is ably assisted by instructors in the various branches of horticulture and agriculture included in the curriculum. Several of them are old students of the college.

COUNCIL MEETING.

The council meeting was held at 3 p.m. The Countess of Warwick presided, and was supported by Lord Coventry, Lord and Lady Hertford, and others. After a few opening remarks by the Countess of Warwick, the warden, Miss Edith Bradley, read the following report:

"Lady Warwick, my lords, ladies, and gentlemen.—It is a matter of profound satisfaction and honour to me to be in the position of presenting a report here at Studley Castle upon the work of the closing months of the hostel at Reading and the commencement of the new Lady Warwick College at Studley. Only those who have followed the agricultural scheme from the start will understand what it means to it to be in its present surroundings, and only those again can at all appreciate the enormous debt of gratitude women, educated women, owe to our most generous founder. Here, then, is our chance, our opportunity of 'extending to others what we so richly enjoy,' and if at Reading we were hampered for want of space, hampered by enormous rates and taxes (living in a Royal borough), hampered by urban surroundings, and, above all, hampered by being spread over four different houses, here we have unlimited scope and opportunity of development in every department, we have room for everyone under one roof, which means so much in the way of consolidation, and that one roof situated in the most beautiful surroundings possible. I should like here to make a few remarks on the last term's work at Reading. After our students discontinued attending the classes at Reading College in July, 1902, we had our own lecturers and examiners, and a certificate was given by the Lady Warwick Hostel to those successful and fully-trained students who won them. The best testimony of the practical nature of our work can be found in the examiners' reports. During August the hostel was moved to Studley; one might say the move is still going on. The work of repair and adaptation in this huge house has been enormous. In beginning of August it seemed as if prophecy would be fulfilled, so we came and lived here, one room out of about fifty was habitable. Little by little we ousted the workmen, but it was impossible to open term and house the students at all comfortably until September 30. That day a large party arrived, and has been added to since, so we now number forty-one students, and I am expecting three more at least at the half term. Two new ones have already entered for the next term.

"A word as to the various departments. Horticulture has always been the largest, perhaps because it presents the best openings. In poultry Mr. George A. Palmer is the instructor; he also lectures on dairy farming. Miss La Mothe, N.D.D., also an old student, is manager. The manager of the dairy is Miss Hoare, N.D.D., an old student. Botany is taught by Miss Sharples, also an old student, who enjoys the privilege of a day a week with Professor Hillhouse at Birmingham. Miss La Mothe deals with soils and manures, and Miss Hughes Jones with entomology and insect pests. Mr. Herrod is bee expert, assisted by Miss La Mothe, and book-keeping and business training is taught by Mr. Long, Birmingham accountant. Miss Crooke and myself have invented a fruit stiller. She did the bottling, and gained two silver Banknotes and a gold medal at the Royal Horticultural Society, Chiswick, beating the trade."

In her address Lady Warwick emphasized the need for some scheme to enable women to earn their own living, and stated that by a training in gardening and the lighter branches of agriculture such was made possible to them. In taking up this work they must overcome the prejudices of farmers and gardeners. Lord Coventry, Lord Hertford, Professor Hillhouse, Mr. T. W. Sanders, Mr. Herrod, and others also addressed the meeting.

NATIONAL CHRYSANTHEMUM SOCIETY.

FLORAL COMMITTEE.

A WELL attended meeting was held at Essex Hall, Essex Street, Strand, W.C., on Monday afternoon last, 26th inst., at three o'clock, Mr. D. B. Craus being in the chair. An excellent collection of novelties was staged, and a high standard being observed, but few were recipients of the coveted distinctions. Japan varieties, as novel, predominated,

and several of them were large and of good form and colour. The following were the more conspicuous:—

Maude du Cros.—A very large and handsome Japan bloom of exhibition standard, it has long and broad pointed and slightly twisted and curled, and building a bloom of great depth. Colour pale sulphur yellow on inside of the florets, with a much paler reverse. First certificate to Mr. T. Bullimore, Canon's Park Garden, Edgware, Herts.

Mrs. T. P. Bryce.—This is a very large and handsome incurved flower of good form and compact build. It is fairly broad and pointed. First-class certificate awarded Mr. W. J. Godfrey, Exmouth, Devon.

Miss E. Holding.—Another incurved of large size globular form; the petals are broad and pointed. This very full flower, and when finished is deep and solid. On silvery pink. First-class certificate to Mr. W. Seward, Firs, Hanwell.

Exmouth Rival.—This is a splendid type of Japan reflexed; the flowers are of moderate size and quite distinct. The petals are fairly broad, and the flower of good form. The colour, the chief point of excellence, may be described as a rich shade of crimson, with a beautiful golden bronze reverse. Commendation awarded to Mr. W. J. Godfrey.

Several other novelties deserving notice were shown, the best of which were *Mrs. George Judge*, a lovely rose-pink sport from Master C. Seymour, having broad petals, making a desirable flower; *Wilfred H. Godfrey*, a pretty Japanese bloom with long petals of a reddish crimson colour and deep golden bronze reverse, curling at the ends; *Mrs. Bachelshelm*, a glorious sport from Lily Mountford, colour rosy crimson on the lower petals with a rich golden yellow centre; *Colonel Weatherall*, a striking rich and deep yellow Japanese, with long and broad petals of spreading form; *Lady Pearce*, a chaste and lovely rich creamy white with a greenish centre, petal long, broad, and slightly twisted; *Thornycroft*, which the committee desired to see again, is a fairly large flower of refined appearance; the petals are long and of medium width, and the colour is a pleasing shade of silvery rose-pink on a cream ground. There was a capital attendance of members.

UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE seventeenth anniversary dinner of this society was held on Tuesday last at the Holborn Restaurant, Mr. Peter Barr, V.M.H., being in the chair. The company numbered about 100, and among those present were Messrs. E. Sherwood, Thomas Cox, G. J. Ingram, James Hudson (hon. treasurer), W. V. Baker, George Barr, Dawkins, Dawson, Cowell, Mrs. Brown, D. B. Craus, W. P. Thomson, C. H. Curtis, L. Heal, Cuthbert, Bevan, and others.

After the usual loyal toasts, the chairman gave that of "The United Horticultural Benefit and Provident Society." After eulogizing the good work done by the society, Mr. Barr said he thought some of the rules were rather cumbersome, but he understood that these were about to be rewritten. He was not aware until recently that seedsmen were entitled to the benefits of this society. He had made the matter known in Messrs. Barr's warehouses, and thought it would be a good thing if other seed houses would do the same. He hoped all present would assist towards obtaining the 10,000 members he hoped to see enrolled within a few years. He would suggest that a leaflet be prepared to circulate among young gardeners, one among nurseries, and still another among seedsmen; also that clergymen should be written to asking them to draw the attention of their parishioners to the society. He suggested that a branch of the society should be established in Scotland. He met with no self-help gardening associations either in the United States, Australia, New Zealand, or South Africa, except in Sydney, N.S.W., where there is an excellent gardeners' society. Mr. Barr asked what there was to prevent lady gardeners becoming members of the society, as they had evidently come to the front. Mr. James Hudson (treasurer), in replying to this point, thought that Scotchmen would rather join a society already established rather than form a new one. They were never so sound as at the present time—they had £22,000 invested. He acknowledged the good work done by the Press in making the society known. He hoped their society might long continue to carry on its good work.

Mr. A. J. Brown proposed "The Honorary and Life Members." He thought that one of the best features of this society was that it provided for old age without in any way being a charity. He hoped that the alteration of rules would induce more gardeners to join. He thought Mr. N. N. Sherwood did a grand thing when he inaugurated the convalescent fund. Mr. Thomas Cox briefly replied.

Mr. C. H. Curtis proposed the toast of "The Chairman and Mr. Barr," in replying, said he hoped soon to visit all the chief gardens of Britain, but before doing so intended going to Egypt, Palestine, and Greece.

Mr. W. Woods proposed "The Visitors," and Mr. J. Bevan replied in an interesting speech, in which he strongly upheld the great educational value of travelling, and said that it was not possible to stay at home and be a good gardener.

Mr. Thomas Winter proposed "The Press," and Mr. J. Hooper Pearson responded, mentioning that Professor Wagh had taken back to America a copy of this society's rules, and that it was not improbable that before long a similar society would be established over there.

Mr. Collins (secretary) proposed a vote of thanks to the donors of flowers and fruits, and took the opportunity of thanking the society for its continued confidence in him.

It was announced that Messrs. Barr and Sons had become honorary members of the society and had subscribed ten guineas. Mr. Peter Barr gave five guineas.

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Grant, in 24's ... 2/6 and 3/6 " 30/- to 42/- "	" in 24's ... 2/6 and 3/- " 30/- and 36/- "	
Richardson, in 48's ... 1/3 and 1/6 " 15/- to 18/- "	Belle Siebrechtsyn, Mrs. Grant, in 32's ... 1/3 and 1/6 " 15/- and 18/- "	Standard Roses, H.P.'s ... 21/- "
in 24's 3/- and 3/6 " 36/- to 42/- "	Kaiserin Augusta Victoria, in 32's ... 1/3 and 1/6 " 15/- and 18/- "	Half Standards ... 15/- to 18/- "
Augusta, in 40's 1/3 and 1/6 " 15/- and 18/- "	Sunrise, in 24's ... 2/- and 2/6 " 24/- and 30/- "	Dwarf Roses, J. Ambrose's Selection ... 6/- and 8/- "
Boya Beauclerc, in 48's ... 1/3 and 1/6 " 15/- and 18/- "	Perle des Jardines, in 32's 1/- and 1/3 " 12/- and 15/- "	All the best leading varieties.
Boya Beauclerc, in 48's ... 1/3 and 1/6 " 15/- and 18/- "	Bridesmaid, in 48's ... 1/- and 1/3 " 12/- and 15/- "	Dwarf Tea and Hybrid Tea Varieties
in 48's ... 1/3 and 1/6 " 15/- and 18/- "	Corallina, in 48's ... 1/3 and 1/6 " 15/- and 18/- "	Climbing Teas and Noisettes, from open ground ... 12/- to 15/- "
George Dickson, in 48's ... 1/3 and 1/6 " 15/- and 18/- "	Frau Karl Druschki, in 48's 1/9 and 2/- " 21/- and 24/- "	Crimson Rambler, 9d. and 1/- each ... 9/- to 12/- "
in 48's ... 1/3 and 1/6 " 15/- and 18/- "	Lady Roberts, in 48's ... 2/6 and 3/6 " 30/- and 42/- "	Strong Ground Plants.
in 48's ... 1/3 and 1/6 " 15/- and 18/- "	" " 24's 5/- " 7/6 "	

All orders accompanied by remittance will be sent Package Free when not less than 1 doz. are ordered. Guaranteed to be the finest grown Plants in the Country.

AMBROSE'S GRAND NEW BLACK GRAPES.

MELTON CONSTABLE SEEDLING, "Lady Hastings" x "Gros Colmar."

Raiser, W. SHINGLER, Head Gardener to Lord Hastings, Melton Constable.

The entire Stock of this New Seedling Grape was purchased by me on September 29th, 1903, and will be ready for distribution July, 1904.

PRICES OF CANES.

FRUITING CANES, 31/6 each. A Few Extra Strong (Fruiting this year), in 12 size pots, 42/-. For description, see Daily Mail Report, October 1st, and Gardening Papers, October 3rd and 10th, Reports of Chiswick Fruit Show. ORDERS WILL BE EXECUTED STRICTLY IN ROTATION.

AMBROSE, F.R.H.S. (For 29 years with Messrs. Paul & Son, 23 years of which the Sole Representative),
NURSEYMAN, SEED, TREE, BULB, AND PLANT MERCHANT,

Telegraphic Address: "Ambrose, Cheshunt."

THE NURSERIES, CHESHUNT, HERTS

CARDIFF GARDENERS' ASSOCIATION.

THE second meeting of the season took place at the Grand Hotel on Tuesday, the 20th inst., when Mr. H. R. Farmer presided over a large attendance. Mr. F. W. E. Shrivell, F.L.S., F.R.H.S., Thompson's Farm, Tunbridge, delivered an instructive lecture, entitled "The Use of Chemical and other Manures in Horticulture," illustrated with a series of lantern slides, showing the actual plots on his experimental farm containing crops grown from various proportions of chemicals put on the land with and without the aid of organic manures. The illustrations produced were clearly a proof of what can be done with care, and served as an object-lesson for future trials. Mr. Shrivell also brought a series of slides showing the method of Hop growing on his own farm, embracing the starting into growth, fixing poles, gathering the crops, measuring the kiln for drying, and the produce on the way to market, also Hop-pickers, and their mode of living during the season. The best thanks of the meeting were accorded Mr. Shrivell for his most interesting lecture, to which he briefly responded. It was announced that Mr. H. R. Farmer, Cardiff Castle Gardens, would lecture on "Vines" on November 10.—J. JULIAN, Hon. Sec.

BRISTOL GARDENERS' MUTUAL IMPROVEMENT ASSOCIATION.

THE opening meeting of the winter season of this society was held at St. John's Rooms, Redland, on the 15th inst. The chair was taken by Dr. Barclay J. Barron. A most instructive lecture was given by Mr. J. C. House, of Coombe Nurseries, Westbury-on-Trym, his subject being "Hardy Perennials." Mr. House, who makes a special study of hardy perennials, was accorded an enthusiastic reception, and his lecture was listened to with great interest. He remarked on the renewed interest taken in these gems of our gardens, the cultivation of which was increasing every year. He gave an exhaustive list of the favourite varieties, with cultural directions for each, in such a manner that his audience were able to carry away with them a host of most valuable hints. A special feature of the evening was a magnificent collection of fifty perennials grown at Messrs. Isaac House and Sons, Coombe Nurseries, which, notwithstanding the inclement weather, were most remarkable. *Pyrethrums*, *Pentstemons*, and *Michaelmas Daisies* were beautiful in the extreme, showing the amount of care and attention bestowed upon them. The society unanimously awarded them a certificate of special merit for this praiseworthy display, with which they had taken so much trouble. Dr. Barclay J. Barron, on passing a vote of thanks, said what an interesting lecture Mr. House had given, and how pleased he was to have been able to preside over such a meeting which had been of so profitable a nature to himself and the members present. He hoped the society would continue to maintain the steady progress it had made during its formation, and expressed the hope that more of the Clifton gentry would interest themselves in the good, sound, and useful work being done for the benefit of the horticultural world. Mr. House replied. Prizes for six bunches of perennials were awarded to Mr. A. Baker (gardener, Mr. Orchard), Lady Cave (gardener, Mr. Poole), and Mr. J. C. Aiken (gardener, Mr. Clarke). For a basket of autumn foliage and berries the prizes went to Mr. R. Ambrose, Mr. Cary, and Mr. R. Poole. Certificates of merit went to Mr. A. Cole (gardener, Mr. Bird) for six vases of *Begonias*, Mr. H. Daniel (gardener, Mr. Quick) for one Orchid, and for two Orchids to Mr. F. C. Fisher (gardener, Mr. Shelton).

Zonal Pelargoniums at Arbigland, Dumfries.—The wet season we have experienced has brought home to many the value of some flowers under glass. In many gardens the glass structures are small compared to the demands made upon them, and it is desirable to use them for only free-flowering subjects. At Arbigland, Dumfries, the seat of Colonel C. E. Blackett, a feature is made of zonal Pelargoniums, and these as cultivated there are of inestimable value for cutting for the houses, as well as for the conservatory. A large number of the most modern type are grown and flower freely, giving large trusses with splendid pips of various colours. The plants are as a rule in 6-inch and 8-inch pots, on the stage of one of the greenhouses, and the treatment of these differs little from that ordinarily followed. There are, in addition, a number in the same house which are old plants grown in 12-inch pots and trained to wires on the rafters and also to the wall at the back of the house. Some of these plants are of considerable age, but it is surprising the quantity of bloom they give almost continuously. They make short joints and bloom very profusely, while the trusses are much finer than many would expect from old plants. These zonals are watered with liquid manure twice a week, and in this and the top-dressing they receive is the main secret of their flower display. As the pots are filled with roots a ring of zinc is placed on the top of the soil, and this is filled with fresh compost. No one who has not seen these plants frequently for a long period can have any idea of their value for cutting. The foliage is limited and small, but the flowers are good and freely produced. Mr. W. Houlston, Colonel Blackett's gardener, finds them exceedingly valuable.—S. A.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 80, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHERS. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Names of plants.—Thorn.—*Griffinia hyacinthina*.—*Tempany* July.—1, *Atlantis glandulosa*; 2, *Catalpa bignonioides*; 3, *Crataegus crus-galli ovalifolia*; 4, *Vaccinium corymbosum*.—W. H. Cox.—The name of the enclosed specimen is *Pitcairnia albucifolia*, a native of the West Indies, and belonging to the natural order Bromeliaceae, an extensive class of plants but little grown in this country. The best known of them all is the Pine-apple (*Ananas sativus*). To succeed in its culture this *Pitcairnia* needs stove treatment, with (in order to induce it to flower) comparatively light shading during the summer months. Plenty of water throughout the growing season is necessary to its well doing, yet at the same time stagnant moisture is decidedly injurious. To prevent this the drainage must be effectual, and a potting compost made up of equal parts of loam, peat, leaf-mould, and sand is very suitable to the requirements of this plant. Should the peat and loam be of a very sandy nature a lesser amount of pure sand must be added. During the winter the plant will not need so much water as in the summer months, but at no time must the roots be allowed to get quite dry. As you suggest, it is certainly a very pretty pot plant, and so are some of the other members of the genus. *Pitcairnia alba*, of which a nice specimen may be grown in a pot 6 inches in diameter, pushes up a slender branching spike to a height of 3 feet to 4 feet, and bears a great profusion of scarlet blossoms, much like those sent but rather smaller. *Pitcairnia corallina* is a large growing plant with palm-like leaves 4 feet long and a dense spike of large red flowers, which is pushed out horizontally from the base of the plant in early spring.

Salvia patens (E. C. CLOUGH).—*Salvia patens* is almost hardy; indeed, it will in many places pass safely through a mild winter without any protection or simply a few leaves scattered over the crown of the plant. To be thoroughly safe, however, the tuberous roots should be lifted, laid in boxes, and covered with dry soil, then placed in a cellar, shed, or cool house, where they are just safe from frost, but nothing more, for if kept too warm they start (as yours did) prematurely into growth and then perish.

Prolonging the season of single Roses (W. H.).—Having had occasion to plant back in April some of the summer-flowering single Roses, such as *Anderssonii*, *Macrantha*, *Leuchstern*, *Penzance Briars*, &c., I was much gratified to find them blossom much later than the established plants. Whereas these latter will flower in June, those alluded to did not unfold their blossoms until towards the end of July. I think it is a phase of Rose culture worth remembering. If we cannot have perpetual-flowering forms of all Roses, we may at least assist Nature to prolong the display by such late planting as noted above. This applies in like degree to many Hybrid Perpetuals and other types.—P.

Grubs on Brussels Sprouts (T. C. H.).—The grubs you sent were very much dried up and shrivelled when they reached me, but I have no doubt they are the grubs of the Cabbage fly (*Anthomyia brassicae*), a fly very much like a small house fly. One of the best means of destroying this insect is by taking up the diseased plants with as much earth about the roots as possible, putting them into a basket or box from which the grubs cannot drop out, and carrying them away and burning them. Then fill the holes caused by their removal with fresh lime or strong brine to kill any grubs which may have been left behind. Watering with any insecticide which was strong enough to injure the grubs would probably do more harm to the plants than the grubs would. Ground which has borne an infested crop should be well fallowed and dressed with gas-lime.—G. S. S.

Retinospora growth (W. M.).—A very interesting specimen, which well illustrates a fact long recognised by botanists, viz., that several of the plants grown in gardens as distinct species of *Retinospora* are in reality but forms of two or three species. The tree 10 feet high is *Retinospora plumosa* of gardens and nurseries, but really it is a form originated from the Japanese *R. pislifera*, and the growth referred to by you as abnormal is an instance of the original species again asserting itself, for the branch which stands out in such a conspicuous manner is *Retinospora pislifera*, pure and simple. Examples such as yours, though decidedly uncommon, have been observed before; even the plant known as *Retinospora squarrosa*, which is in general appearance much further removed from *R. pislifera* than *plumosa* is, has been known to push out a branch identical with the typical *R. pislifera*, from whence it has sprung. Though the generic name of *Retinospora* holds good in many cases, our botanical authorities have now merged it in the genus *Cupressus*, so that the correct appellation of the tree referred to by you is *Cupressus pislifera* var. *plumosa*.

TRADE NOTES.

MUSHROOM GROWING.

MR. JOHN F. BARTER, LIMITED, Napier Road, Wembley, Middlesex, has issued an interesting booklet upon the sub-

ject of Mushroom growing and spawn making. Mr. Barter commenced his business in 1973. In the first year 3,000 bushels of spawn were made and one ton of Mushrooms was grown. In 1932 the output of spawn was 10,000 bushels and ten tons of Mushrooms. This year it is expected that the total output will be nearly twenty tons. Mr. Barter says the production of the Mushroom is a profitable business when good spawn is secured. Customers are always welcome to visit the grounds at any time to see for themselves the art of Mushroom growing for market, and hints are willingly given.

PORTABLE STREAM FRUIT AND HOP-WASHING APPARATUS. THE long spells of dry weather from which agriculturists have suffered during the past few years have caused many farmers to go in for pumping plant to water their vegetables and root crops, and where such apparatus has been adopted crops have been saved, and, as the markets have been ill supplied, have fetched better prices than usual. In repaying the grower for the expense of watering. The engine supplied with Messrs. Merryweathers' patent Hop-washing plant is particularly suitable, without any addition except hose-piping to convey the water and sprayers to distribute the liquid for watering work in time of drought, and can thus be employed practically all the year round as follows: In spring and summer for Hop-washing, spraying fruit trees and shrubs, root and vegetable crops, &c., watering Hops, plants, trees, and crops; in autumn for watering vegetable and root crops, supplying farm and stables with water, &c., and tree moving; in winter for sheep-washing, watering cattle, pumping out ponds and ditches, &c., for driving sawing, churning, separating, grinding, chaff cutting, and other farm machinery. With Messrs. Merryweathers' apparatus six men can thoroughly spray 12 acres of large Cherry or Apple trees, taking 100 tons to the acre, in six hours, or 6 acres of Hops in the same time. The plant can also be used for spraying Potatoes and root crops, Tea plantations, Vines, Tobacco plants, &c. The plant is extremely portable, and can be shifted and re-laid in half an hour. One of the many advantages of this apparatus is the economy with which it distributes the insecticide, so that every drop reaches whatever is being sprayed.

HAREFIELD HALL ORCHIDS.

ON Wednesday and Thursday, November 4 and 5, Mr. John Cowan, Gateacre Nurseries, near Liverpool, will conduct a sale of duplicate Orchids from the Harefield Hall collection of Orchids, the property of Elijah Ashworth, Esq., Harefield Hall, Wilmshole, Cheshire.

A NEW RAFFIA.

MESSRS. JAMES T. ANDERSON AND SONS, LIMITED, 15, W. and 155, Commercial Street, E., have sent us samples of an excellent new Raffia. It is very white and broad, long and of a silky nature. Messrs. Anderson consider it to be the finest imported into this country for many years. It is greatly sought after owing to its good quality.

NEW TYPE OF DAHLIA.

MM. RIVOIRE PERE ET FILS send a box of their new Dahlias a collarette, but the Post Office regulations did not permit of their being forwarded. They have therefore sent us illustrations of two new varieties, *Maurice Rivoire* and *Gallia*, both of which have an inner row of small petals in addition to the ordinary ones. The older variety, *Frédéric Vigor*, shows this second row of petals, but much less developed.

CATALOGUES RECEIVED.

Fruit Trees and Roses.—Messrs. Thomas Rivers and Son, Sawbridgeworth, Herts; Messrs. George Banyard and Co., Maidstone, Kent; Messrs. John Jefferies and Son, Cirencester.

Hardy Plants.—Mr. Amos Perry, Winchmore Hill, I. **Novelties for 1904.**—Messrs. J. C. Schmidt, Erfurt.

PUBLICATIONS AND BOOKS RECEIVED.

The Studio for October is the best number that has been produced. One of the reasons is that the magazine has been permanently and considerably enlarged, and the present part forms the beginning of a new volume. It is, as usual, full of excellent illustrations, coloured and otherwise, and articles; but perhaps the brightest contribution is concerned with the London Sketch Club, which was started a few years ago on the lines of the Lingham, and has for members such well-known artists as Dudley Hardy, Hannall, Cecil Albie, Tom Browne, and G. C. Halé. The reproductions of the artists' two-hour sketches are extremely good, and the portraits of some of the members are remarkably lifelike. Those who are personally acquainted with the men represented will enjoy these sketches and portraits.

Great Masters.—We have nothing but praise for a new publication being issued by William Heinemann of London called "Great Masters." The series contains superb photographic reproductions, by an improved method, of the best works of famous painters from 1400 to 1800, with an introduction and descriptive text by Sir Martin Conway. The plates are 15 inches by 20 inches, and are on the finest art paper. The first part contains photographs of William II., Prince of Orange-Nassau (Van Dyck), Mrs. Carnarvon (Reynolds), portrait of Jan Steen, by himself, and The Ash Tree (Van der Meer). Each part is 5s. net.

Messrs. George Newnes, Southampton Street, Strand, send us the *Captain and Wide World Magazine* for October, both of extreme interest, and the last part of the "Century Book of Gardening," which is now completed. We shall review the release of the whole work shortly.

* * The Yearly Subscription to THE GARDEN is: *Island*, 15s.; *Foreign*, 17s. 6d.

THE GARDEN

No. 1668.—VOL. LXIV.]

[NOVEMBER 7, 1903.

FLAVOUR IN FRUIT.

WE asked perhaps the greatest raiser of new fruits and flowers of the present day whether there was an honest desire among hybridists to think of flavour as an attribute worthy of serious consideration, and the answer was an emphatic "Yes." This is comforting to those who despair of convincing growers that if ruddy cheeks and heavy weight are in their degree of some importance, flavour appeals more strongly to the palate of the public, who know what is most wholesome and pleasant but is not always able to get it.

A big Beurré Clairgeau Pear or a Peasgood's Nonpareil Apple have no value in the eyes of those who set flavour and wholesomeness before bulk, and those unacquainted with the best varieties for flavour among the many fruits should at this planting season, when the lists are being drawn up, make a wise selection to secure the varieties that possess what is usually described as "quality." It is satisfactory to find that the fruit and vegetable committee of the Royal Horticultural Society, before which body the majority of the novelties are placed for their approval or otherwise, are not forgetful of the great importance of flavour in a fruit and the finest quality in a vegetable, and this praiseworthy judgment has had a most beneficial influence upon the men who bring forward novelties for the good of the public.

Some may declare we have sufficient fruits already, but this is an absurd answer, when we remember that many known sorts fall short of an ideal standard. There is ample room for improvement, whether by hybridisation or selection, and it is a simple matter to replace an old variety for a novelty of greater merit. We value too highly the work of the hybridist to write a single disparaging word against his efforts to add to the pleasures of the table; it is for the public to accept or reject the outcome of his skill and labour. Many fruits raised within recent years are already established favourites, and we can mention one with special approval, the Loganberry, which is being planted largely both in private and market gardens.

Raisers of new fruits should also think of the seasons which are not blessed with much variety in this way. A glut in October does not compensate for a dearth in January, and therefore the work of the hybridist must be

watched with interest and encouraged by all who wish well the great horticultural industry of these isles. The work of the hybridist *who thinks* is never finished.

KEW NOTES.

INTERESTING PLANTS IN FLOWER.

Temperate House.

BEAUFORTIA SPARSA, *Cytisus filipes*, *Leonotis dubia*, and *Veronica speciosa* varieties. In the two octagons a nice collection of *Chrysanthemums* is now in flower, including many large bush plants, with a sprinkling of plants grown for large blooms.

Palm House.

Sterculia mexicana.

Arboretum.

Arbutus Unedo and varieties, *Colletia cruciata*, and *Laburnum caramanicum*.

Orchid Houses.

Catasetum Hookeri, *Cœlogyne lagenaria*, *Cymbidium gammieanum*, *C. traceyanum*, *Cynorchis purpurascens*, *Cypripedium fitchianum*, *C. pitcherianum*, and others, *Dendrobium Phalaenopsis*, *D. strongylanthum*, *Epidendrum Armstrongi*, *E. vitellinum*, *Listrostachys pellucida*, *Masdevallia inflata*, *Miltonia spectabilis* var. *moreliana*, *Odontoglossum andersonianum*, *Oncidium cheiroporum*, *O. crispum*, *Phalaenopsis Esmeralda*, *Restrepia maculata*, *Spathoglottis hardingiana*, and *Vanda cœrulea*.

T Range.

Echmea candida, *Allamanda violacea*, *Aphelandra tetragona*, *Begonias* (winter-flowering) as follows—Ideals, Julius, John Heal, Mrs. Heal, and Venus, *Billbergia Moreli* var. *paucifolia*, *B. porteana*, *Cleome heptaphylla*, *Coleus Mahoni*, *Dyschoriste Hildebrandtii*, *Eranthemum albidiflorum*, *Jacobinia chrysostephana*, and *Tillandsia Lindenii*.

Greenhouse.

Chrysanthemums form the chief attraction in this house now. There are about 100 varieties in the house, and all are now at their best. The majority are grown as bush plants, but there are a few plants here and there which have been grown for large blooms. The show of *Chrysanthemums* is one of the best there has been for many years, and of the many varieties the following are conspicuous: Mrs. G. Mileham, H. J. Jones, Lady Byron, Mme. Ferlat, Mme. E. Rogers, Mrs. Coombes, Lady Smith, and Mrs. Thorneycroft.

ROUND ABOUT A GARDEN.

THE SEASON OF THE DEAD LEAF.

THIS is the dolorous untidy season of the dead leaf. Where the gardener swept yesterday, there is a new rustling carpet for him to sweep threadbare again to-day; or, as he says, the leaves will "smother everything." There is wonder no doubt in the annual miracle of the falling leaf. A forest, or even a park landscape

or any well-wooded garden, is a solid thing to look at in summer; and when one thinks that all those tons upon tons of greenery were manufactured by the trees for summer use and are dropped when the time for rest from work arrives, one cannot help recognising the marvel and the beauty of the change. Leaves die beautifully, too; and the older one grows the more one values the sad splendour of autumn tints of Nature. Perhaps you appreciate the consolations of autumn more when you feel the autumn in your blood.

THIS YEAR'S MISSED GLORIES.

This year, however, it has been a favoured place indeed when the many hues of autumn have reached their proper excellence. For most of us the flying Beech leaves came in brown and twisted showers, where in other years the trees have been sheeted with coppery red, with shades of actual carmine between the folds. Tennyson's Maple that "burns itself away" in autumn's golden blaze, this year stood draggled and tattered and bare almost before a shade of yellow had crept into any leaf. Where, too, can we hope to see the Larches this year standing like soft pyramids of pale gold against the blue-black Pines? One afternoon last November I sat writing in a room which was flooded with amber light reflected from the Larches in the shrubbery opposite. Now, I am sitting at the same window and see the Larches standing like untidy scaffold poles with hardly a cobweb film of brown leafage upon their branches. How can trees that went threadbare before "summer" be ended by lavish of golden tissue in late autumn?

THE LEAVES' DANCE OF DEATH.

For the wind—worst of the long list of wicked things that waste a garden and begin with "W"—has had its shattering way with us this year; and the equinoctial gales of spring had not died away before those of autumn began to hustle the weary trees. And now that the leaves are littering the ground, the wind, like a cat with a dead mouse, plays all sorts of weird pranks with the wreckage it has made. At night they come pattering on the window, often like ghostly finger-taps; and when you open the door they come whirling and rustling in, whisking round like the skirts of some invisible fairy dancer. Over the lawn they lie thick as bread-crumbs on a fried sole, and wherever there is a wet angle of a path there they collect in sodden, wind-swept heaps, under which long lob-worms and fat slugs find a sludgy asylum. Many writers of fame have written with ecstasy of the dancing of the wind-borne leaves. To me it seems always a dance of death—forced merriment of shrivelled corpses playing with their enemy, the wind, who picks them up and flings them down wherever he pleases, and usually where their remains will be most unsightly and will most vex the gardener.

BRACKEN AND IVY.

There is no reason, of course, why some should not be predisposed to admire one phenomenon of late autumn as much as another: to see as much beauty in the dance of wind-driven leaves as in the flickering snowstorm of white-winged gulls over the plough. All of our notions of beauty are based upon connexions of ideas. "Some is born Rooshians, and some is born Prooshians, and them as is born different thinks different." To many people, for instance, the high waving sea of green Bracken in summer, or its golden-brown fronds in autumn, amid which the silver-stemmed Birches stand knee-deep, is one of the most grateful sights of English woodland; and another is the rich green carpet of Ivy which softly covers all the ground in many coppices. Though one cannot fail to see the real beauty of the Bracken and the Ivy, both, when growing thus, fill me with a sense of discomfort and disappointment.

Analysing the feeling, when I first noticed its incongruity, I found that it dated from boyhood's butterfly-hunting days in the Cotswolds, where there was rare collecting in most of the woods, but none to speak of in woods full of Bracken and carpeted with Ivy. These plants, growing in battalions and spreading like the plague, help the rabbits to crowd out the other woodland plants upon which caterpillars feed and whose flowers the butterflies seek. Many years afterwards I chanced to hear another man make a disparaging remark about a wood vista of Bracken which others were admiring. "Another thing you do not like," I said to him, "is a carpet of Ivy covering the ground in a coppice." "Quite true," he said, "it always worries me." "Then," I triumphantly replied, "you collected butterflies as a boy." He admitted the fact, and we fell to reviving the joys of those days of long ago, and it was almost absurd to find that our ideas of perfect woodland beauty almost exactly coincided in every detail of herbage and undergrowth. Similarly, there exist reasons, if we could only find them, for every detail of our likes and dislikes, our preferences for certain shapes of flowers or shades of colour.

E. K. R.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 9.—St. Neots Chrysanthemum Show.
November 10.—Royal Horticultural Society's Drill Hall Meeting; meeting of committees at 12 noon; lecture upon advantages and disadvantages of size in flowers, fruits, and vegetables at 3 p.m.; National Chrysanthemum Society's Exhibition at the Crystal Palace (three days); Devizes and Oxford Chrysanthemum Shows.

November 11.—Buxton, Reading, Liverpool (two days), Hampton, Winchester (two days), and Banbury (two days) Chrysanthemum Shows; East Anglian Horticultural Club Meeting.

November 13.—Blackburn (two days), Leicester (two days), Sheffield (two days), and Leeds Paxton (two days) Chrysanthemum Shows.

November 25.—National Chrysanthemum Society's dinner at the Holborn Restaurant.

Note on *Nymphaea gigantea*.—About two months ago I received some small tubers of the above-named Water Lily from a friend in Sydney. They were in very good condition, though only about the size of large Hazel Nuts. I potted them in small Orchid pans in loam and placed them in my warm tank. In about a week they began to form very small leaves, which in a month were about 8 inches in diameter, rather elongate ovate in form, and with nearly even outline,

not scalloped as in *Nymphaea scutifolia*. About a fortnight ago, to my great surprise, a bud appeared. It was more nearly globular than in the South African species, and as it grew showed a somewhat pink colour at the edges of the sepals. Another bud soon followed, and both are now open, and, though small, as are the first flowers of most Water Lilies, are quite distinct from any others I have seen. They are 4 inches in diameter and open fully, floating on the water, whereas those of *N. scutifolia* rise a foot or more above it. The petals are about twenty in number, rather broad and rounded, not pointed as in the other blue Water Lilies, and they are of a very delicate blue with a tinge of lilac, quite distinct from those of the African species. But perhaps the most distinctive feature is in the central mass of stamens, which is large for the size of the flower, very compact, and almost globular, and of a clear sulphur yellow. They are quite free from the petals, and sharply defined both in form and colour, presenting a very beautiful contrast. Should this species grow to its full size next year, as I hope it will do, it will afford a beautiful picture with the bold deep blue *N. scutifolia*, the pure yellow *N. mexicana*, and the lovely pink *N. odorata rosea*, which I have growing in the same tank.—ALFRED R. WALLACE, Broadstone, Wimborne.

Broughty Ferry Horticultural Association.—In connexion with this association's course of lectures a very interesting one was given recently in the Grove Academy, Broughty Ferry, by Mr. Robert Don, Longforgan. The subject was "Our Native Grasses," and Mr. Don dealt with it in a most instructive manner. The value of the lecture was largely enhanced by a series of lime-light illustrations. Mr. Don was heartily thanked.—S.

Wrong terms.—May I enter a respectful protest against the growing practice of speaking of a plant's "hardihood?" The word is really not a synonym of hardiness so far as meaning a power of withstanding cold, as a glance at a dictionary will show. They are only used indifferently to express bravery, or boldness, or audacity, meanings entirely distinct. To put it another way, while hardiness bears the two meanings, hardihood is strictly confined to the others, of boldness and the rest of the like qualities.—T. J. WEAVER.

Potatoes in 1903.—We get such wonderful new Potatoes now with regard to their cost and other details that in a season when disease is so bad it is refreshing to poor growers to read "A. D.'s" excellent note at page 262, and to get such practical remarks from that splendid grower Mr. Beckett, at page 283, though we always expect such from him at a time like this; when excellent varieties are condemned wholesale, it is refreshing to get at the facts from experienced men. I have carefully read the correspondence in THE GARDEN, and I am not quite sure if the Editor, when he invited notes on the Potato, expected such a boom of some sorts and others that have for many years stood in the front rank to receive wholesale condemnation. In most cases growers have not taken soils or situation into account, and in others no particulars as to culture are given, but Mr. Beckett kindly gives full particulars. This season our best standard varieties have failed—I mean the early tubers mostly, and second earlies. I will not name varieties, but I do not mean yet to discard those which have served us so well previously. I am in a similar position to Mr. Fyfe as regards some sorts, but till these have had another trial I should be sorry to place them on one side for novelties.—A LARGE GROWER.

The weather in South Hampshire. Now that the rain has intermitted it seems worth while to put an experience on record. We have had rain here for thirty-six consecutive days, from September 26 till November 1, so that rain fell every day in the month of October. Of course, upon some few days the rain was only light, but on far the greater number it fell in tropical torrents, tempestuous storms of rain of almost unexampled

fury blew up hourly from the Channel, day after day and week after week. Gilbert White, who lived in the northern part of the county, records 50 inches of rain as having fallen in 1782 and 39½ inches in 1786. We seem to have lighted on a fellow year. I regret I have no rain gauge, but when our Chrysanthemums were housed on September 25 and 26 the zinc water-barrow was scoured and stood on a by path in the garden; it now contains 15½ inches of rain water.—R. P. S., near Winchester.

New Apples and their keeping qualities.—I read recently in THE GARDEN, page 290, that we may soon expect some very interesting introductions in the shape of long-keeping sorts that will be superior to those in commerce. These will undoubtedly be a great gain if they come up to the standard described. As, however, we now have so many fine Apples, new sorts that surpass them must be indeed good. It will be a great advantage if they bloom later in the season, as this year the only fruits we have are on the trees that flower late and were sheltered. As all growers are aware, there is no want of variety; indeed, there are too many sorts. In giving awards to new Apples the fruit committees are often in a difficulty, as, though the fruits sent may be excellent in some cases out of ten, the members are ignorant as to keeping and general keeping, two important points, as fruits may be shown late, but given special storage. For instance, at the Temple we see October Apples six or seven months later, well staged, but it is questionable if such Apples are profitable when cost of storage is considered. If we can get a Blenheim as good in May as in November it will be an acquisition.—FRUIT GROWER.

Swanley Horticultural College.—On the 28th ult., through the kindness of Lord and Lady Brassey, a meeting was held at 24, Park Lane, to hear an address from Mr. A. D. Hall, M.A., director of the Rothamsted Experimental Farm, on "Horticultural Instruction for Women." Lady Brassey presided, and there were also present Sir John Cockburn, K.C.M.G., Sir John Hibbert, K.C.B., Sir E. Verney, the Hon. Mrs. Lyttelton Gell, Lady Lennard, Colonel Sir Herbert and Lady Perrott, Professor Boulger, Miss Williams (principal), and Miss Sieveking (secretary of the Swanley College). Mr. Hall said there had been many exaggerated statements about the opening for women in commercial gardening; this was a matter for very careful consideration. He thought that the propagation of new and rare plants, for which there is a market demand, or raising new hybrids, offered a field for women workers. He thought that a collegiate instruction would do more to make a woman work intelligently than the old system of apprenticeship. He thought that women were far keener to take up instruction and work better at the scientific side of a subject than men. The great value of the instruction given at Swanley is that it is practical. Whether women ever turned to practical use the knowledge gained at Swanley or not, the course of instruction there could not fail to be of great value. Sir John Hibbert proposed the following resolution: "That this meeting respectfully presses upon the Government the claim which colleges for the horticultural instruction of women have to some share in the funds placed at the disposal of the Board of Agriculture for educational purposes, provided they submit to inspection by the Board and attain the required standard of efficiency, and therefore urges the Government so to increase these funds that all secondary institutions, agricultural and horticultural, may be treated upon terms of equality." Mr. J. C. Medd supported this resolution, which was carried unanimously. Sir John Cockburn thought that gardening was eminently suitable for women, and that women possessed infinite skill in tending plants. Miss Sieveking had received a letter offering £250, if this amount is made up to £1,000, to wipe off the college's liability, and Sir John Cockburn mentioned the present as a good opportunity to clear the college from debt. Mrs. Lyttelton Gell addressed the meeting with reference to the Colonial branch attached to the college, designed specially to meet the needs of women going to the Colonies.

Geum Heldreichii superba.—Among the Geums this stands out prominently on account of its rich colouring. It has been shown by Mr. James Perry, Winchmore Hill, on several occasions during the summer months, and has never failed to attract attention and to elicit praise. The flowers, each of which is usually $1\frac{1}{2}$ inches across, are a rich orange-red, a brilliant colour, and their beauty is accentuated by the bunch of yellow stamens. This Geum obtained an award of merit at the Temple show this year when exhibited by Mr. Perry, and it has, I was informed by Mr. Perry, been in flower in the open from the end of April until a few weeks ago, when a splendid specimen was shown from the Winchmore Hill Hardy Plant Nurseries. This variety originated at Winchmore Hill, and is really the result of a selection from Geum Heldreichii. Mr. Perry deserves to be congratulated upon having introduced such a valuable plant. It is particularly easy of cultivation, and may be propagated by division without difficulty. It grows from 18 inches to 2 feet high.

Cassia corymbosa in Ireland.—This plant is no stranger to our greenhouses and conservatories, and when planted out in a suitably-prepared border it is not unusual to find it covering a large space, and even on occasions making its growths through the ventilators at the top of the house and bearing a profusion of its showy yellow flowers. Those who know its value when well grown under glass will probably all the better appreciate the display made by a large plant covering a considerable wall space out of doors. It was my good fortune to meet with such a plant a short time ago when visiting Lady Ardilaun's garden at Clontarf, near Dublin. It was the middle of October, and the plant was simply smothered with flowers, a mass of yellow almost from top to bottom. The great clusters of yellow flowers, produced over an area of some 8 feet square, to judge from memory, produced an effect that those who have seen it well grown indoors can well imagine to be striking. Mr. Campbell, the head gardener at Clontarf, has evidently taken great care of this Cassia, and doubtless a note from him as to its history and treatment would be found interesting.

Cynoches maculata.—In the group of Orchids exhibited by Messrs. Charlesworth and Co., Heaton, Bradford, at the Drill Hall, Westminster, on the 27th ult., there were many rare and valuable plants. Among the former must be classed Cynoches maculata, a plant that is very rarely seen, for few have ever been imported. The sepals and petals are splashed with chocolate upon a pale green ground, and the curious arching column which has given rise to the name of Swan's-neck Orchids, as the Cynoches are popularly known, is well developed. These Orchids are sometimes referred to as the cobra-headed Orchids, and such an appellation, though by no means so attractive as the other, yet seems better to describe the appearance of the curious column which has given rise to these popular names. The Cynoches thrive well in teak baskets, and a compost of peat and sphagnum moss, used in the proportion of three parts of the former to one of the latter, suits them well.—A. P. H.

Aster salicifolius Tresserve and others.—A note on this plant appeared in THE GARDEN about this time last year by Mr. Wolley-Dod. I have four plants of this Aster which have been in flower since the 10th ult., and it is difficult

to praise their beauty and floriferousness too highly. The incessant rain, which has ruined all the tall-growing Asters, seems merely to have improved A. salicifolius. The total length of one specimen is 2 feet 3 inches, and the part covered with flowers is 2 feet by 19 inches. After flowering I dig up and divide the root. The divisions are potted and kept in a cold frame till April. Good rich soil covered with broken slate suits their requirements; north-east or east aspect in full sun. Other Asters particularly fine this season are A. Amellus Riverslea and A. Amellus Perry's Favourite.—E. C. Buxton, *Coed Dero, Bettws-y-Coed.*

Akebia lobata in fruit at Newstead Abbey.—The Akebias are not very widely known in private gardens, though there are a few

The flowers, which appear in April and May, are small, brown in colour, and very profusely produced. The fruits, which are generally in pairs, are a pinky mauve shade, and, while a little lurid off the plant, look attractive against the large, handsome, dark green leaves. Miss Webb has kindly forwarded me an extract from the Japanese work entitled "Useful Plants of Japan," in which A. lobata is described as "Japanese Mitsuba-akebi, a deciduous climber of the order Lardizabalaceæ, growing wild in mountains. The leaves are triphyllous, and the flowers, opening in early summer, are monœcious, and are succeeded with edible fruits. In Midsuguchi of Omi and Tsuguru of Mutsu the young Vines are bleached and used to make baskets, &c., which are the famous product of Midsuguchi in Omi." The young leaves, like those of A. quinata, are gathered, steamed, and dried up and used as a substitute for tea. Although the fruits are said to be edible and are certainly sweet, they are not of sufficient flavour to recommend them to an ordinary palate, but on the plant they are very ornamental and are untouched by the birds until frost comes, when they fall to the ground and burst open, and the birds soon clear out the contents. The skin is bitter. The plant at Newstead Abbey is in very sandy soil mixed with peat and leaf-mould and against a south wall, on which it has attained a height of 12 feet, and where it does better than A. quinata, which has not fruited there. It is to be hoped that this interesting climbing plant will soon become better known.—S. ARNOTT, *Carse-thorn, by Dumfries, N.B.*

The Tangerine Orange. There are numerous well-marked varieties of the Orange (*Citrus Aurantium*) in commerce, and of this number the Tangerine is very distinct, differing, as it does, from other varieties by its small, uniform size, thin skin, very juicy flesh, and rather peculiar flavour. In addition to being distinct it is also very popular, and usually obtains a fair price in the market. The accompanying illustration shows a plant of this variety growing in a Californian garden, and bearing a good crop of fruit. In British gardens Oranges are not grown now to any extent, but in a few places they still form a feature indoors, and in places where Oranges are grown the Tangerine should be in evidence. In Orange plantations the trees are planted about 15 feet apart, and in some places bushes such as the one shown are more popular than trees. Two, and sometimes three, crops of fruit are gathered in one season, that from the first flowering being considered the best.—D.



THE TANGERINE ORANGE IN CALIFORNIA.

in which A. quinata is cultivated for the sake of its neat foliage and its curious, sweet-scented flowers. Still less known is A. lobata, a species introduced much later and hardly to be met with except in botanic gardens. It is a very ornamental plant for a wall or trellis, and it appears to be much hardier than was at first supposed. I am led to mention it now through having received a couple of its fruits from Miss Webb, Newstead Abbey, Nottingham, who, knowing the interest I take in climbing plants, very kindly sent them for my inspection, with full details of the plant which produced them. Although A. lobata, according to works of reference, was not introduced until 1895, it really appears to have come to Newstead Abbey in 1893, when Miss Webb had an importation of Japanese plants direct from that country. It flowered and fruited about the third year after it was imported.

Saxifraga Fortunei.—Referring to Mr. Irving's note (page 293) on this pretty Saxifrage, I do not think anyone need treat this as half hardy only. I have grown it for quite a dozen years, and find it flourishes perfectly well out of doors all the year round. Give it a shady position where it can be damp, not wet, and it is quite safe. Mine is now (October 30) in flower.—T. J. WEAVER, *Woodside Park, London.*

Royal Horticultural Society.—The next fruit and flower show will be held on Tuesday next in the Drill Hall, Buckingham Gate, Westminster, 1—4 p.m. A lecture on "The Advantages and Evils of Size in Flowers, Fruits, and Vegetables" will be given by Mr. E. T. Cook at three o'clock. At a general meeting held on Tuesday, the 27th ult., thirty new Fellows were elected, making a total of 1,236 elected since the beginning of the present year.

Rubus rossifolius.—Under the name of the Strawberry Raspberry much mystery has at times been connected with this plant, but, as stated in a recent issue of THE GARDEN, page 275, it is not by any means a hybrid between these two fruits just mentioned. It is simply an old and well-known species of *Rubus*, which, according to the *Botanical Magazine*, is a native of the Himalayas, Burma, and Java. It was first described in 1791 by Sir J. E. Smith from specimens from Mauritius, where, according to Mr. Baker, it was introduced by Commerson about 1790. The fruits, which are much like those of the Raspberry, but of a bright red colour, are sold in some of the West Indian Islands under the name of Framboisier. There is a variety with double blossoms which about a quarter of a century ago attracted a good deal of attention, particularly after it was shown at a meeting of the Royal Horticultural Society and awarded a first-class certificate. Nowadays it is very rarely seen. Neat little bushy plants may be grown in pots 5 inches or 6 inches in diameter, and when crowded by clusters of semi-double pure white blossoms it is very pretty. This *Rubus* will thrive with ordinary greenhouse treatment, provided the leaves are kept free from red spider, which cause them to turn yellow and drop.—T.

Aronia floribunda for its foliage. This is without doubt one of the most ornamental of all the *Pyrus* family, and considering the great beauty of the foliage at this season it is surprising that it is not more generally grown. It forms a somewhat upright, branching shrub between 4 feet and 8 feet in height, with numerous clusters of white flowers, which are very conspicuous during May and June. They are succeeded by quantities of almost black berries, which are also very ornamental. As a flowering shrub it is of great value in the mixed border, but when used for massing in the pleasure grounds or wilderness I know of no other shrub more beautiful during October. To see the effect of the brilliant crimson and yellow colouring to the best advantage a good-sized bed in an open position, where no large trees will give shade, should be devoted entirely to its culture, and before planting the ground should be well prepared by giving a good trenching and adding some well-decayed manure. Few shrubs require less attention, little or no pruning being required, and it will succeed in most soils, whether heavy or light. The bark, too, has a very distinct hue in winter, thus making *Aronia floribunda* a beautiful shrub throughout the year.—A. E. THATCHER, *Elstree*.

The Edinburgh School of Gardening for Women.—The progress made by the School of Gardening for Women, opened a year or two ago near Inveresk, has been such as to justify the principals in securing more permanent and more convenient gardens for their enterprise. Ground was secured near Corstorphine, suitable glass houses erected, and everything arranged for the purpose of giving students ample opportunities of pursuing the practical study of horticulture. Although the new establishment has been occupied for a short time, the formal opening only took place on October 23, when the Countess of Aberdeen declared the school open in the presence of a large attendance of ladies and gentlemen. Mr. John Cowan, J.P., Master of the Merchant Company, presided, making an interesting little speech, in which he commended the enterprise, and then called upon the Countess of Aberdeen to open the school, which she did in a graceful speech, in which she pointed out that there were many departments of horticulture in which not physical strength alone, but also education, culture, and brains were required, and that there was thus an opening in gardening for cultured women. Professor Bayley-Balfour, in proposing a vote of thanks to Lady Aberdeen, expressed the hope that the school would carry out the intentions of its initiators, not only by giving an insight into the practice of gardening, but also into the scientific principles which are at the basis of the craft. The gardens have been laid out, and the course of two years planned in such a manner as to secure full instruction in market gardening and florists' work, and also in such branches of horticulture as are

more especially valuable in private establishments. The principals—Miss Barker and Miss Morison—hold diplomas of the Swanley College, and are also certificated gardeners of the Royal Botanic Gardens, Edinburgh.

Single Chrysanthemums.—From what we can learn there appears to be a revival of interest in these pretty decorative varieties of the autumn queen. Many of them are free-flowering and very graceful in appearance, and will at this season of the year always be useful in a variety of ways. Messrs. Henry Cannell and Sons of Swanley have a very choice collection of these, and among a batch of recent novelties we noticed on the occasion of our annual autumn visit the following, which certainly are destined to meet with a generous appreciation. **Eureka.**—A very large-flowered Japanese single; colour pure white, with yellow disc. **Grace.**—Large blooms, flat florets of good length; colour pure white, small yellow centre. **Progress.**—Flat, starry flowers, golden-yellow, with the greater part of the floret tinted terracotta. **Mrs. J. Ferguson.**—Sport from that well-known variety *Mary Anderson*, same form, but the colour is a deep rose. **Paris Daisy.**—Light in build, but very pretty; colour pure white, small yellow centre. **Mrs. Jewry.**—Starry, flat-petalled blooms; colour crimson-red, yellow centre. **G. W. Forbes.**—Large size, florets rather broad; colour beautiful shade of darkest velvety maroon. **Kate Runchman.**—Large-sized blooms, rather flat, stiff florets; colour pure pale primrose. **Sunbeam.**—Rather smaller than the preceding; colour pure bright yellow. **Pigmy.**—Very free, florets flat; colour reddish terracotta.—C. H. P.

Curcuma roscoeana.—The *Curcumas* belong to the Ginger Wort family, having for their immediate allies the *Cannas*, *Calatheas*, *Hedychiums*, *Kamperias*, *Marantas*, *Mueas*, and the different members of other lesser-known genera. The species under notice, and, in fact, nearly all the *Curcumas*, are natives of the West Indies, and consequently require stove treatment in this country. They are rarely seen in gardens, and there is a good deal of confusion about their nomenclature, but as far as I know that at the head of this note is one of the best, and withal a very beautiful flowering plant. It forms a stout tuber-like root-stock, from where are pushed up leaves not unlike those of a *Canna*, while the flower-spike is produced independently of the foliage. The flowers are in a cone-like head on the upper part of the flower-spikes, and are bright red in colour. As far, however, as the decorative value of the plant is concerned the flowers themselves play but a minor part, as each is accompanied and partly hidden by a large lip-like bract of a pleasing reddish orange tint, which retains its beauty for a considerable time. The usual period of blooming is during the late summer and autumn months, but flowers are occasionally produced earlier in the year. Like many of its allies, this *Curcuma* passes the winter in a dormant state, during which period it should be kept dry without being actually parched up, and about the end of February shaken clear of the old soil and repotted in a mixture of loam, peat, well-decayed cow manure, and sand. After this a little water must be given, to be increased in quantity as the plants grow.—H. P.

Cold house Peaches at Woodlands Vale, Ryde.—Having visited these well-kept gardens annually for the past three seasons, I have always been struck by the magnificent crop of Peaches and Nectarines obtained there. The narrow case in which they are growing is 100 yards long, simply a cold house. It is to this simple protection that we see the inestimable value of such structures over uncovered walls in the inclement seasons we have experienced of late years. The fruit is very highly coloured and in plenty, when trees less fortunate have lost almost their entire crop on open walls. In the culture of the Peach, Mr. Farr, the gardener here, does not advocate a very rich soil when planting, so as to gain a too strong growth, but rather feeds with surface waterings, according to age and crop, using farmyard drainings and an occasional sprinkling of artificial manure when the

fruit is swelling. The border in spring is top-dressed with short manure. After the fruit is gathered the trees are carefully gone over and old fruiting and useless wood cut away, giving full light and air, and thus concentrating all the energy into the next season's fruiting wood. The varieties, some two dozen in number, are carefully selected, so as to carry over as long a period as possible. A few of the best I will mention—*Early Alexander*, *Grosse Mignonne*, *Stirling Castle*, very fine; *Barrington*, *Goshawk*, *Royal George*, very heavy crop; *Noblesse*, grand fruits; *Dymond*, *Vanguard*, *Bellegarde*, *Nectarine Peach*, finely coloured; *Salway* and *Princess of Wales Peaches*, with *Nectarines*, *Early Rivers*, very fine in size and colour; *Rivers' Orange*, very heavy cropper; *Humboldt*, and very fine *Dryden*. To utilise every bit of space in this narrow case, *Black Hamburgh Grapes* are planted in the front and trained on wires running horizontally, 3 feet from the ground level, and so not shading the Peaches on the wall. Very serviceable bunches are usually produced. In another case, though smaller, *Figs* carry heavy crops on the same principle.—G. ELLWOOD, *Seamore Gardens*.

A note on Tufted Pansies.—The wet weather of the last two months has been trying to many hardy plants, but it has had the effect, in some instances at least, of encouraging the production of first-class material for propagation. Readers of THE GARDEN will remember that for some years, owing to the abnormally hot summer and long drought, many of the better tufted Pansies could not show their true value. When propagation time by cuttings came round there was often insufficient stock for our purpose, and what there was available at the time was often shrivelled and weak. Last year the stock generally was in much better condition than it had been for some years past, and the cooler climatic conditions, together with continuous moisture this season, have provided most promising stock. A profusion of young growths have developed, and the earliest batches of cuttings have rooted quickly and are now doing well. Cuttings inserted in raised cutting beds in the open are doing remarkably well.—D. K. CRANE.

Crocus asturicus.—Though not quite so ornamental, perhaps, as *C. nudiflorus*, the little *Crocus asturicus* is pretty. It is very hardy and stands more bad weather than some of the other autumn-flowering species. This latter merit is due to the short tube and general sturdiness of the plant, while the substance is such that it will stand more rain even than some others which are more effective. It has been in bloom here for a considerable time, and has stood well in bud during one of the worst autumns we have had, and has been ever ready to open with a brief spell of sunshine. Such a sturdy little flower deserves consideration, especially as it is comparatively cheap. This little Spanish species, which is very plentiful in the North of Spain, where it is found from the sea-level to as high as 4,000 feet to 5,000 feet, is variable in colour. The type is violet-purple, but in some varieties it is considerably deeper than others, and there are white forms met with occasionally. I am not, however, aware of anyone in Britain who has any of these white forms. There are in the hands of some of the trade and private growers varieties such as *azureus*, almost blue in tint; *atro-purpureus*, one of the best, and a fine dark purple; *pallidus*, pale mauve; and *purpureus*, a fine purple, while Mr. E. A. Bowles has in his splendid collection a robust variety from Gijon. Of those procurable I prefer *atro-purpureus* and *azureus*, but one would be unwilling to part with any of the varieties of this pretty and valuable little *Crocus*. As Mr. George Maw pointed out, it is closely allied to *C. Salzmanni* and *C. serotinus*, but it is readily distinguished by the short development of the leaves at the time of flowering, while those of *C. Salzmanni* and *C. serotinus* come before the blooms, and are nearly fully developed and almost as tall as these at the time they open. *C. asturicus* requires no special treatment, and generally flowers here early in October, though sometimes it opens in September.—S. ARNOTT, *Carsethorn, by Dumfries, N.B.*

The proposed Potato Society.—A rious comment on the proposal to establish a tional Potato society with trial stations in rere parts of the kingdom is seen in the different inious respecting the value or otherwise of early rieties shown in the communications just printed Mr. E. Beckett and Mr. A. Findlay. The mer favours much wider culture of early varie- a, the latter states that to depend on them is to rt failure. Both are in earnest, and both are n whose opinions merit the fullest respect. Still re is such a wide diversity of view that no nary person can tell which is the safer to low, and only trials simultaneously conducted a wide area, and in diverse soils, can give a rect line to follow. I have read elsewhere, as ll as in *THE GARDEN*, various opinions as to the rite of Northern Star and Sutton's Discovery. hen opinions thus expressed in the horticultural pers so seriously conflict, what is an intending rehaser to do, and whom is he to believe? Pro- bly all are right so far, but not one season's alalone, especially such a disastrously cold wet een as is the present, justifies an opinion on y one variety. Certainly a series of well- raged trials as suggested would, during such a eon as the present one, help to show what rieties best withstand wet and cold; but those rieties again might be by no means the best to p in ordinary warm, dry seasons. I have nured to suggest to the promoters of the Potato iety proposal that they fly at high game, and e not content with securing the active co-opera- n of the Royal Horticultural Society. The help, possible, of the Board of Agriculture and the rious county councils of the kingdom should also ad. To conduct a series of well-arranged trials ch as is desired would need considerable outlay. nably the trade would be willing to help, but tually the chief support should come from her sources. Both the market garden and the ruing interest should be associated also. It not be too clearly understood that the Potato , without exception, a food of the highest eable importance. It is of chiefly insular trest, and is outside the much-vexed question r tariffs. Probably with no one food can such ot be done to secure from home resources so uch of value and importance as through Potato itara. I hope the proposals as to the formation a national society will be so broad and so ranced as to secure the widest support. A small iety will command little respect, a strong ational society will compel respect.—A. D.

The Aldenham Crotons.—It has never my good fortune to see the Aldenham Crotons rferred to on page 290) at home, but I did see em at the Holland House show last June, and nately admired them, for not only were they niful examples of plant culture, but to my mind e least no other group in the entire show could e one moment compare with them for effect. The ante, all springing from a Maiden-hair bank, were raged sufficiently far apart for the individual aracteristics of each to be plainly seen, which as far more than could be said of most of the her exhibits, for the great aim of many exhibitors ems to be to cram as large a number of plants as eable in the space allotted to them; in fact, rking rather than arranging would best describe me of the groups. Cramping is so much the der of the day at our great exhibitions that I ntire to think if the number of plants at either e Temple or Holland House were reduced by e-half the show would be far more pleasing to e majority of visitors, providing, of course, that e weeding out was done in a systematic manner, eing principally aimed at what might be called e stuffing of the show. That Ferns and such- e foliage plants are useful as a ground work I e fully aware, but these can be lightly though effectively arranged instead of being so close egether that the pots almost if not quite touch.—T.

A new Carrot — Veitch's Inter- mediate.—The well-known Exeter firm at the ecent great vegetable show at the Royal Horti- cultural Society's gardens at Chiswick staged a ery shapely Carrot of the Intermediate type, and a new Celery called the Pink Plume, which is of

excellent quality and of taking appearance. The new Carrot alluded to received an award of merit for its shape, colour, clear skin, and good appear- ance. It was a very shapely root and a splendid colour; just the size for a private garden, with a short top and no waste. Carrots of late years, especially the small and medium roots, have been improved upon greatly, and there is now a splendid choice. Veitch's Intermediate will be a most valuable introduction for shallow soils or early supplies, and in addition it keeps splendidly. I prefer them to the longer roots for winter supplies, as, being smaller, the seed need not be sown early when the roots are grown for winter and early spring.—G. WYTHES.

Polygonum amplexicaule var. oxyphyllum.—This is a fine autumn-flowering plant. When seen in a mass by the side of a stream or lake it is very beautiful. The handsome stems, which are thrown up to a height of 3 feet or 4 feet, terminate in large, feathery racemes of tiny white flowers, which stand heavy rain. Once well planted it takes care of itself for several years. When naturalised near the walks of a thin wood in company with a few bushes of *Viburnum Opulus* (which takes on rich tints at this time of year) it gives a beautiful effect.—F. C. TRIBBLE, *Apperley Court Gardens, Tewkesbury.*

A COX'S ORANGE PIPPIN ORCHARD.

I N 1895 and 1896 two contributions of mine were published in *THE GARDEN* concerning a plantation, consisting chiefly of Cox's Orange Pippin Apple, in East Devon. A short time ago I visited the spot again, and think that perhaps the result of my inspection may not be without interest. The plantation is situated on the side of a hill facing east, and is about 500 feet above sea-level and five miles from the sea. The staple may be described as a sandy moor- land soil with an average depth of 10 inches. It is light and porous, and contains a large proportion of siliceous sand and a considerable quantity of water-worn pebbles, of which many cartloads were removed when the trees were planted. The subsoil consists of a ferruginous sand, into which the roots show no disposition to enter.

In 1895 eight acres were in Apples, now there are fourteen, about eleven of which are devoted to Cox's Orange Pippin. The oldest trees are thirteen years from the graft. At the time my former notes appeared it was the practice to keep the surface of the ground continually stirred with a hoe, chickens were allowed to run in the plantations, and every care taken of the trees, including systematic spraying, which was carried out by means of a garden engine drawn by a pony and four hands. The first spraying was given in the early spring while the trees were dormant, and consisted of a solution of sulphate of copper. The second, of Paris Green and Bordeaux Mixture, the former as a destroyer of the winter moth caterpillar by poisoning its food, and the latter as a fungicide, was given as soon as the rosettes of leaves unfolded and disclosed the buds within. The third spraying was applied directly the fruit had set, and the fourth a fortnight later, the two last being intended to compass the destruction of the codlin moth. If aphids appeared a spraying of "Killmright" was given, followed a little later by Bordeaux Mixture and sulphate of iron. It was found that if sufficient lime was incorporated with the mix- ture not the slightest harm was done to the foliage. The trees were at that time looking and bearing well. They were bush trees on the broad-leaved Paradise stock, and were planted 12 feet apart each way.

At my late visit, on taking a casual look at the trees I was at first somewhat disappointed that the interval of seven years had not resulted in a greater increase in size, and was naturally interested in the proprietor's history of that period. For the first few years after planting the trees made good growth, which was attrib- uted, by the light of subsequent events, to the upper spit of turf that was worked into the soil at the time. Subsequently little growth was made, this at first being considered the result of dry seasons, but later on this con- clusion was modified, and it was decided that the main cause of poor growth was that all the sustenance provided by the upper spit having been appropriated by the roots the trees were suffering from lack of humus in the hot, shallow soil. A heavy dressing of farmyard manure would doubtless have afforded this requisite, but manure of this description was, unfortunately, unprocureable in the neighbour- hood.

Various artificial fertilisers were tried on different rows of trees without result, and it was at length decided to let the grass grow. This, according to the third report of the Woburn Experimental Fruit Farm, is a fatal method of procedure, for it reads: "No ordi- nary form of ill-treatment—including even the combination of bad planting, growth of weeds, and total neglect—is so harmful to trees as growing grass around them." This, however, was written of a heavy soil, whereas this East Devon soil is light and hot. At any rate, as far as can be seen the experiment here appears likely to be successful.

In January the grass is given a dressing of three parts of superphosphate to two parts of kainit, the 144 square feet between the trees standing 12 feet apart each way receiving 2½lb. In April 12oz. of nitrate of soda is applied to the same space. These dressings will not necessarily be continued annually. The grass is not cut until the end of July, when it is quite dry, and is then allowed to remain where it falls. This forms a springy mat like a thick Turkey carpet, and effectually prevents damage to falling fruit, none of the Apples that were blown off in the severe gale of September 10 being injured. Sheep are turned into the plantations in the winter, and doubtless a proportion of the dead grass is drawn into the soil by worms. The trees, I understand, are looking far better than they did four years ago, and certain poor rows have greatly improved since the surrounding ground has been heavily mulched with grass cut from the edges of the plantations, though it is, of course, too early as yet to predict what the ultimate result of the experiment will be. Two years ago the lower branches were cut off the trees, leaving them with about 18 inches of clear stem, and last year the leading branches were shortened back.

The majority of Cox's Orange are sturdy bush trees with six or seven main branches, and are about 5 feet in height, now that they have been shortened back, and rather more through. A few on the Crab stock are larger, but have not borne so well. The wood is exceptionally clean and shining, the only tree out of many hundreds that I saw bearing Lichen being a solitary example of Cornish Gilliflower. Taking one season with another Cox's Orange has borne fairly well, the best fruits being of fine quality those that won the first prize at Exeter a few years ago, since which time they have not been exhibited, averaging 9oz. apiece. The fruit is marketed in London in non-returnable boxes containing 5lb. weight, and fetches remunerative prices, the supply being always unequal to the demand. During the present year the crop, as is the case

throughout the whole of the south-west, has been poor, only about 15 bushels of good fruit having been secured. At the time of my visit the leaves, as well as the foliage of the hedge-rows and deciduous trees, appeared as if seared by fire owing to the effect of the gale a fortnight previous. Many other varieties of Apples have been tried, but few with success. Cox's Pomona cankers and does not bear, King of Tompkins County is useless, as are Mannington's Pearmain, American Mother, and Scarlet Nonpareil. Bramley's Seedling has also proved disappointing, it being found easier to obtain a bushel of good Cox's Orange than of that variety, while the fruit never comes of good size.

Five trees of Ribston Pippin have, however, done well, showing no sign of canker and bearing satisfactorily. These trees are well sheltered, but one tree of the same variety in an exposed position has failed to bear. Lane's Prince Albert has done well, but by far the best variety has proved to be Duke of Devonshire, a dessert Apple of fair quality that is at its best in February. This grows so well and fruits so consistently that all trees making poor growth are grafted with it. The Nonsuch Paradise has not turned out well, and the majority of trees on that stock are now grafted with Duke of Devonshire, the parent tree of this variety, from which all the grafts have been taken, being a sturdy bush 9 feet in height by 10 feet in diameter. To show the respective growths of conifers in this soil I may mention that, of trees of the same size planted at the same time, Pinus insignis is 30 feet in height, the Douglas Fir 18 feet, and the Spruce 5 feet. S. W. F.

APPLES FOR SMALL GARDENS.

INFLUENCE OF STOCKS.

THE Apple is so valuable an article of food for all classes that no apology is needed in calling attention to some of the many points in its successful cultivation; that experience alone can teach. It goes without saying that every man, woman, and child in England loves an Apple, either as dessert or in a cooked condition. This being the case, one would naturally expect to find a collection of up-to-date varieties in every garden attached to every home, whether large or small. The neglect of the growth of this great English fruit, especially amongst our country working population having gardens, is difficult to understand. We have special societies instituted to promote the improved growth and to extend and popularise many of our well-known flowers, such as Roses, Dahlias, Chrysanthemums, Sweet Peas, &c., but so far no society has been established to promote the growth of any special fruit or vegetable, although we hear it is now proposed to form a society for the purpose of protecting the interests and popularising the growth of the Potato. Let us hope that before long some body of men will consider the Apple. It is a subject that deserves strong support in order to bring its supreme merits more prominently before the British public.

It is difficult to account for the neglect in the matter of Apple planting in England. Many causes no doubt are responsible, but not one, I venture to say, having any solid ground to rest upon. The most common complaint is that the trees are a long time in giving profitable returns after planting. This is really not the fault of the Apple, but is the fault of those

who plant the trees. Either the wrong varieties have been planted, or they have been planted by inexperienced hands in poor, unsuitable soils and without proper preparation previously. It may be that the trees have been worked on the wrong stock. This latter is more often the cause of failure than many imagine. It is so much the custom to recommend the Apple to be worked on the Paradise stock indiscriminately without reference to varieties, resulting in much disappointment in many cases; for instance, those varieties which are known to be heavy and consistent croppers, such as Lane's Prince Albert, Worcester Pearmain, Allington Pippin, Frogmore Prolific, &c., should be worked on the free stock. By free stock is meant stock raised from the pips of English Apples, and the best and strongest of the produce of these only should be grown, all the weakly ones being discarded. The result of working these free-bearing sorts on a dwarfing stock like the Paradise results in the tree making little or no wood growth, or of its ever developing into a large and robust specimen. The fact of many varieties being consistent heavy croppers is a safeguard against over leaf or wood growth, for where this is the case over luxuriance of growth is obviated by constant cropping, although grown on the free stock. In recommending varieties of Apples for planting in small gardens I do not think that the quality of the free-bearing properties of the varieties receive the consideration due to them, especially in relation to cottage gardens. It is, of course, desirable to possess the best quality and flavoured sorts, but it is of greater importance to the labourer to possess sorts which are sure bearers, even if not of the highest excellence as regards quality and flavour. Another point worth noticing amongst Apple trees, especially in regard to their suitability for planting in small and moderate-sized gardens, is the precociousness of many varieties in bearing fruit over others.

I am not saying that there is any particular virtue in this tendency, as young trees which bear heavy crops soon after planting do so at the expense of the development and strong growth of the tree, still in some cases it is useful to know that there are some sorts better adapted for giving quick returns after planting than others.

The best I know in this respect is Allington Pippin, one of the most useful and fruitful of recently introduced Apples; Christmas Pearmain is another. A very handsome Apple is Lane's Prince Albert. Other good sorts are James Grieve (a Scotch Apple of great excellence), Lord Derby, Sandringham, and Newton Wonder. I have often drawn attention to the latter remarkable Apple as being, in my opinion, the very best late cooking Apple in the market at the present time. The tree is a robust grower, crops freely even in a young stage, and it is certainly one of the most distinguished and handsome Apples we have. It is a cross between the Wellington and Blenheim, and when better known I predict a great future for this Apple.

Those ordering Apples for cottage gardens should stipulate for heavy and constant croppers, also that the trees have been worked on the free stock. Amongst them are the following:—

DESSERT.—Devonshire Quarrenden, Early Harvest, Beauty of Bath, Duchess of Oldenburg, Irish Peach, James Grieve, King of the Pippins, Scarlet Pearmain, Worcester Pearmain, American Mother, Christmas Pearmain, Court Pendu Plat, Cox's Orange Pippin, King of Tompkins County, Lord Burghley, Margil,

Northern Spy, Rosemary Russet, Scarlet Nonpareil, and Sturmer Pippin.

COOKING APPLES THAT ARE GOOD BEARERS.—Keswick Codlin, Lord Grosvenor, Stirling Castle, Frogmore Prolific, Beauty of Kent, Ecklinville Seedling, Grenadier, Stone's Seedling, Lane's Prince Albert, Gascoigne's Seedling, Petty Geeson, Sandringham, Allington, Newton Wonder, Dumelow's Seedling, Royal Late Cooking, Winter Hawthornden, New Northern Greening, Royal Russet, Baxter's Pearmain, Seaton House, and a new variety of great promise King Edward VII.

OWEN THOMAS.

THE CHERRY.

(Continued from page 278.)

VARIETIES.—It is always advisable to have a few varieties as possible. The cultivator will be able to determine whether early, mid-season, or late fruits are most suitable, and act accordingly. Generally, the White Heart or Bigarreau Cherries are most profitable. Some variety, however, is advisable; each row or set of rows should be of one sort, so arranged in their order of ripening that the picking can begin at one end of the orchard and finish at the other, to save unnecessary removal of tent, ladders, and other accessories. The Flemish, May Duke, and Morello are useful for short rows in corners; also as shelter from the wind in exposed positions, where they can be planted twice as thickly as the larger growing sorts.

EARLY CHERRIES.—Black: Early Rivers, Black Heart, Knight's Early Black. White: Frogmore Bigarreau, Ludwig's Bigarreau, Black Heart. Red: May Duke.

MID-SEASON.—White: Kent Bigarreau, Black Eagle. Red: Royal Duke.

LATE.—White: Napoleon Bigarreau, Clerice Bigarreau, Bigarreau de Mezel, Emperor Francis Florence, Windsor. Black: Waterloo, Black Tartarian, The Noble, Turkey Heart. Red: Late Duke, Flemish, Kentish, Morello.

N.B.—"White" is but a general term, the colour of these Cherries varies from pink to dark crimson. They are, however, known as white Cherries in contradistinction to the black and red varieties.

GARDEN CHERRIES.

There are two ways in which these can be successfully grown: first, under a permanent protection of wire netting as bushes or pyramids, to be kept low and pruned, for instance, as dwarf Apple trees. They should be planted 12 feet apart. Trees two or three years old are the most suitable, with the branches disposed in a bushy form. When such a plantation is made with permanent wire netting, until the space is filled by the Cherry trees, bushes of Gooseberries, Currants, or Strawberries may be grown between them for some six or eight years, thus utilising both the land and the structure before the Cherries come into full bearing.

It is advisable to prune garden Cherries in the winter, as they are then much less liable to gum. Some training is needful to bring them to the requisite shape. When once this is done, a shortening of the side shoots and the thinning of the leaders is all the pruning necessary. Very well-ripened fruit can thus be grown, fit for the most select dessert, and no trouble need be apprehended from birds if the netting is properly put and secured.

In making a selection for this purpose, a variety should be planted between each tree, stronger or Heart varieties; both the very early and latest sorts should be included. As the pruned bushes are liable to gum and die from attacks as well as from other causes, it is well to have a small stock of young trees, so that a vacancy can be filled at once by a developed tree. Such reserve trees being transplanted every two years will be prepared for permanent planting in the

rotected area without any risk or loss of crop the first year, but the removal should be made in November.

BERRIES FOR BUSH TREES, PLACED IN THEIR ORDER OF RIPENING.

VERY EARLY.—*Guigne de Louvain, *Guigne Annonay, *Belle d'Orléans, Bigarreau Jabaulay, Early Rivers, *Ludwig's Bigarreau, Baumann's Jay.

EARLY.—*Knight's Early Black, Frogmore Bigarreau, Bigarreau de Schreken, *Governor Food, *May Duke (Old), *Reine Hortense, *Foster's Black, *Belle de Choisy, Elton Heart.

MID-SEASON.—Waterloo Heart, *Royal Duke, *Flemish Bigarreau, *Black Eagle, Flemish and *Flemish Red, *Emperor Francis, *Archduke, *Mon Oliva.

LATE.—*Cleveland Bigarreau, *Bigarreau Napoleon, *Nouvelle Royale, Bohemian Black, *Dezel, *The Noble, Noir de Schmidt, *Géant de Maltingen, Noir de Guben, *Late Duke Ronalds.

LATEST.—Florence, *Black Tartarian, St. Marret's, *Windsor, *Morello, Guigne de Winkler. Those marked with an asterisk are most desirable for pot culture.

GEORGE BUNYARD.

VEDALE'S ST. GERMAIN PEAR AT GATTON.

Our grand old Pear tree can still be seen in good condition at the residence of Jeremiah Wiman, Esq., Gatton Park, Surrey; a really grand old relic, linking the work of past gardeners with the present, and showing us that those long bygone days gardeners took equal pride in having their walls clothed with well-trained trees—objects that no doubt commanded admiration as much in those days as they do in the present. We have nothing to tell us any guide as to when it was planted, but in my opinion at least two centuries have passed since that operation was carried out, and to-day it is well worthy of the space it occupies. It generally carries a good crop of fruit; last season we gathered between four and five bushels, even after subjecting the fruits to a severe thinning. Many of them weighed over 1lb. each. This year, like others in general here the crop was below average, but we have had some fine fruit;

the one I am enclosing weighed exactly 2lb. when gathered. The present dimensions are 91 feet 10 inches from end to end; the longest branch 48 feet; and the butt, 12 inches from ground level, 8 feet 8 inches, which no doubt places it amongst the largest espalier-trained trees in Great Britain, and in the opinion of many it occupies first position.

Gatton Park Gardens.

W. P. BOUND.

PLANTING A SMALL ORCHARD.

THOUGH there may be nothing very new to be said about the garden orchards, there are scores of old-established homesteads yet orchardless, and new residences spring into being every year round which gardens are formed, and where a portion of the ground may be well set aside for the making of an orchard. We are in a hurry over everything in these days, even fruit culture, and with trees available on dwarfing stocks that are guaranteed to bear fruit in two or three years from propagation, we see a spread of garden and plantation fruit culture at the expense of permanent orchards. Surely this should not be. Quick-bearing dwarf trees are well enough in their place, but compared to permanent standard trees they are short-lived, and the man who establishes an orchard does something for posterity as well as for himself, considering the time over which such trees will remain profitable if given proper attention. Apart from the utility of the orchard I never think it is a robbery of garden space to acquire a part of it for an orchard, because the latter has a singular beauty of its own.

THE BEGINNER'S FAULTS.

I would warn intending planters against errors which frequently lead to loss and disappointment. Suitability of site is often overlooked, and standard trees intended to form an orchard are planted in positions where they are exposed to cold sweeping winds and without a thought to providing any means of shelter. Bad drainage is another cause of failure, and it is disappointing to find a few years after the trees are planted that the soil is cold, water-logged, and wants draining. These points should be ascertained before a start is made, and if the situation is low and the land does not drain itself naturally, proper means should be

adopted for carrying off the superfluous moisture. Let every planter avoid the common error of buying trees and sticking them into holes dug in grass land, with the expectation that they will grow and establish themselves without further attention. The rank grass which grows up to the stems chokes the life out of the trees, and in a few years under these conditions they represent so much money literally thrown away. To form a good orchard it is not enough to plant trees; they must be cared for and attended to afterwards, just the same as any other plant.

Finally, avoid the mistake of planting poor trees. Thousands of specimens are raised every year with thin spindling stems and sold at low prices, but at any price they are dear. It is far more economical to go to a respectable nurseryman at the outset, who has a reputation to keep up, and get him to supply well-established specimens, even if they cost more to begin with.

SOIL AND SITUATION.

In these matters the intending planter has often to be governed by circumstances. Possibly the best site for a permanent orchard is a slope having a southern or south-western aspect, but in any case if the enclosure is exposed to cold winds a break of some kind should be planted along the open side as a means of protection. The advantage of a slope is that frost is not felt so severely as in a bottom, but if the orchard must needs be formed in a low-lying situation, it is well to plant late blooming varieties of fruit. Those people who enjoy the possession of an ideal fruit soil have points in their favour, but if the medium is reasonably fertile there need be no hesitation about planting, if due attention is paid to drainage and thorough cultivation beforehand. In fact, experience teaches me that the soil is often blamed for neglect and slipshod methods on the part of cultivators.

Experience has also taught me that the quickest and best way of establishing a permanent orchard is to plant trees on land that is under spade cultivation, and to keep it so for the first few years, after which it may be laid down to grass. By adopting this system the ground between the trees may be utilised for a few years for growing Potatoes or other vegetables, or it may be planted with Strawberries or bush fruits, such as Gooseberries and Currants. Let it be clearly understood, however, that fruit trees are the chief consideration, and there must be no hesitation about forfeiting other crops when the former demand the space. On no account must the roots be interfered with by planting close up to the stems. If for any particular reason it is necessary to plant the trees on grass land, it is most important that the turf should be removed from round the stems for several feet, and not be allowed to grow for a few years till the trees are well established. When the time comes for seeding down the orchard or letting the turf grow up to the stems of the trees, let there be no growth of rank grass, but keep the herbage down to a short, close pasture by feeding it off with sheep.

The question of manuring when preparing the ground before planting must also be considered, and this is largely a matter of conditions. When old pasture land is turned up for orchard planting manure is rarely necessary, but if the ground is at all poor it may be applied, though I do not advise placing it underneath the roots of the trees, but in the form of a mulch on the surface, as this induces the fibres to work in an upward rather than a downward direction. In preparing land for planting I am strongly in favour of bastard trenching, which, of course, consists of turning over the top spit of soil and breaking up the sub-soil to the depth of another foot or so, but keeping it in its former position, not bringing it to the surface. Whether the whole of the ground is



THE FAMOUS ESPALIER PEAR TREE UVEDALE'S ST. GERMAIN IN THE GARDEN AT GATTON PARK, REIGATE.



LILIIUM SZOVITZIANUM.

being dug over or only the stations for the trees, this method may be put into practice.

PLANTING.

I have already pointed out how the ground between the trees may be profitably used for the first few years, and may say here that I have no faith in the practice of planting trees at double the ordinary thickness with the idea of thinning them out when they overcrowd each other. Few people have the courage to cut down a fruit tree just when it has arrived at a profitable state of bearing, and consequently the necessary thinning is never done, and the orchard is practically ruined. Generally speaking, autumn is the best time for planting fruit trees provided the soil is workable, but if it cannot be done at this time it may well be delayed till February. It is never advisable to have fruit trees on order when we are liable to spells of severe frost, as they may have to remain out of the ground for many weeks and therefore suffer.

A space of 30 feet in all directions should be allowed between Apples, Pears, and Cherries, and even more in the case of very vigorous varieties. Plums will do well at 24 feet apart, and common varieties of this fruit or Damsons planted on the boundary for shelter may be arranged at 15 feet apart. The preparation of the stations is not an intricate business, but it should be performed with proper care. Having marked out the position of every tree with a stake, shovel out broad, shallow holes that will readily accommodate the roots when spread out horizontally. Deep planting should be avoided in all cases, and, after cutting back any long tap-roots and placing the trees in position, about 6 inches of the best soil should be carefully worked over the fibres. I have found wood ashes and burnt refuse to be very good for working into the soil placed over the roots, as this material encourages surface-rooting. Planting should always be done at a time when the soil is dry enough to allow firm treading down without being sticky, and some support is necessary for standard trees directly they are planted. A simple method is to fix a strong upright stake on each side of the tree, and twist a couple of hay-bands round the stem and fasten them to the stakes. These are generally sufficient to keep the trees in position till they have got hold at the roots, and the hay-bands do not injure the bark. If the trees are furnished with good heads and are planted in the autumn the leading shoots may be shortened back the following spring, but if the planting is not done

till the latter season the trees can be allowed to grow for a season without being shortened back. It is always well to mulch trees on the surface after planting with decayed manure, or, if the soil is rich and fertile, loose stable litter will serve the purpose of preserving the moisture and protecting the roots. In the majority of instances the surface should be quite level after the completion of the planting operations, but in exceptional cases, where the soil is of stiff clay, it is sometimes advisable to plant on the surface and mound the soil over the roots. This method of planting is adopted with great success on the retentive soil in some parts of the Weald of Kent.

SELECTION OF VARIETIES.

It is for the planter himself to decide whether his small orchard is to be one confined entirely of Apples or a mixture of this fruit, together with Pears and Plums. I do not advise planting Cherries in mixed orchards, for, though the fruit is luscious and acceptable, unless Cherries are grown in sufficient quantity to merit the expense of tending when the fruit is ripe the greater portion of it will be devoured by birds. As a rule, the owner of a small orchard wants variety and succession. He wants some Apples for cooking and others for dessert, and varieties for early use and others for keeping, so he must select accordingly. At the same time he must grow varieties that are suitable for forming standards, bearing in mind that an orchard is an institution expected to go on for an indefinite period. Out of the great host of varieties in cultivation I append the names of a selection suitable for the purpose we have in view:—

Apples.—Early dessert: Devonshire Quarrenden, Mr. Gladstone, Beauty of Bath, Irish Peach, Lady Sudeley, and American Mother. Keepers, dessert: Allington Pippin, Blenheim Orange, Cox's Orange Pippin, King of the Pippins, Sturmer Pippin, and Allen's Everlasting. Early culinary: Duchess of Oldenburg, Domino, and Lord Grosvenor. Keepers: Lord Derby, Beauty of Kent, Warner's King, Cellini, Newton Wonder, Wellington, Bramley's Seedling, and Bismarck.

Pears.—Hardy and suitable for orchards: Beurré de Capiaumont, Fertility, Hesse, Jargonelle, Jersey Gratioli, and Louise Bonne of Jersey.

Plums.—Rivers' Early Prolific, Monarch, The Czar, Green Gage, Pond's Seedling, and Victoria.

Damsons.—Farleigh Prolific and Bradley's King.

In giving the above selection it is obvious that many excellent varieties are omitted, and the list may be readily supplemented or curtailed. Before planting fruit I always think it a good plan to make observations in the near locality and note the varieties that succeed. By doing this and selecting accordingly disappointment may often be avoided, because in the case of most fruits certain varieties have a habit of doing better in one locality than in another, though there does not appear to be any reason why this should be the case. Finally, let me say that the individual who is responsible for the establishment of a good, though perhaps a small, orchard does something for himself, and increases the value of his property.

G. H. H.

NOTES ON HARDY PLANTS

LILIIUM SZOVITZIANUM.

ALTHOUGH not taken when at the zenith of its beauty the accompanying reproduction of a group of *L. szovitzianum* gives a very fair idea of how well it flowered this year in spite of the unfavourable conditions prevailing. All the six bulbs composing the group sent up a single healthy spike (I have not hitherto had more than one from any of them), the best carrying fifteen perfectly developed flowers. I think this is one of the most satisfactory Lilies in cultivation, though it takes a year or two to establish itself, and I should certainly choose it if unfortunately restricted to one single species. Its only drawback is its somewhat powerful and peculiar smell, though, personally, I do not object to this, in fact I rather like it.

CRINUM MOOREI.

APPARENTLY the past wet summer has suited the constitution of this *Crinum* remarkably well, for it flowered much better than in any previous year, and at the time the photograph was taken was the proud and luxuriant possessor of six fine spikes. One of these, however, was unfortunately broken off by accident when the camera was being brought into play. It is a single bulb, planted about six years ago against the south-east wall of a viney in a considerable depth of light, rich soil. Here it has grown apace and produced annually a wealth of handsome glossy leaves, but usually only one spike (rarely two), and this so late in the autumn that it has been quickly ruined by frost. This year, doubtless influenced by the extra amount of moisture, the flowers were practically all over by the middle of September, a much more satisfactory result in every way. In memory of so much bloom there now remains a single seed-pod only, but from this I hope to raise a few seedlings in due course. It seems to me that the unusually fine flowering of this *Crinum* affords a hint as to the necessity for plenty of water all through the summer months, and I shall be careful to give attention to this point in future. I may add that a goodly heap of ashes and peat is piled over the dormant bulb in winter, and the new growth sheltered from winds and late frosts with a few evergreen boughs.

Yalding, Kent.

S. G. REID.

ALLIUM MARGARITACEUM.

THE Alliums are increasing in favour, the introduction of some new species having brought them more into prominence of late years. Apart from their odour—not very pronounced, by the way, in some species—many are of considerable value, though there are also some of no garden beauty whatever. In the remarkably interesting and beautiful garden of Mr. W. D. Robinson-Douglas, at Orchardton, Castle Douglas, N.B., I came across one in the course of last summer which I had never seen before, and undescribed in current works of reference. This is *A. margaritaceum*, a South European species. It is unlike almost any other in general cultivation, and is, although not so pure white as one would like, of some value either as a group in the border or on rough rockwork, or, better still, for planting in the grass. It grows about 1 foot high at Orchardton, bearing round



CRINUM MOOREI.

heads of small, creamy flowers. The heads are about 2 inches across. The leaves were over when I saw the plants, as, like many other *Garlics*, *A. margaritaceum* loses these before the plant is fully in flower. I find from the "*Index Kewensis*" that this *Allium* is described in Sibthorp and Smith's "*Flora Græca*," but I have not access to that work here at present. The bulbs are of a pretty silvery appearance, and the specific name probably refers to this feature.

Carsethorn, by Dumfries, N.B. S. ARNOTT.

GRAPES AND MELONS IN THE CHANNEL ISLANDS.

It is safe to say that the Grape introduced the Channel Islands as a fruit-growing district to the English markets, and it illustrates in a striking manner how pregnant with big results are sometimes those matters which appear of small importance at the moment. In a little book entitled "*Culture of the Vine under Glass*," by W. A. Crousaz, published in Guernsey in 1873, the last chapter is called "*Remarks on Exportation*." Mr. Crousaz was really the father of the fruit-growing industry as far as the Channel Islands are concerned, for it was he who, seeing Grapes fit for the London market, set about surmounting the difficulties of delivering them. Had it not been for him the progress of the industry would at least have been delayed years. We have gathered the following facts from Mr. Crousaz's book.

INCEPTION OF THE INDUSTRY.—About 1847 a small quantity of Grapes was sent to Covent Garden Market. In the same year a range of houses with boilers and pipes was erected as a speculation. The third season after planting (1850) the crop was about 500lb. But the principal exporter declined to purchase, the quantity being too large, and further declared such a crop could not be disposed of at any price. The only alternative was to sell in the local market, but this proved a failure. So, after all, it was decided to try Covent Garden. But the mail-boat's agent declined to enter these goods, as the mails and passengers alone were allowed, and not cargo. The exporter determined that the Grapes should be whatever the consequences might be, and a boat was hired, the fruit was packed beneath the seats, and then, being taken to the steam-packet, the packages of Grapes were quietly handed over the side of the ship and placed out of sight. The crew were busily engaged with passengers' luggage and mail-bags. But each returning mail-boat brought strict orders that fruit should be shipped unless cleared through the Customs. This was overcome by providing a printed form which had to be signed by the Lieutenant-Governor and a magistrate of the Royal Court (fee 2s. 6d.), and the complete taken to the Custom House officials. It is disappointing to read that after so much determination the season closed with a loss, and to prices Mr. Crousaz says: "Arrived at Covent Garden, the fruit realised very little money, and at little was a long time coming." The season of 1851 yielded a heavier crop; Covent Garden was again resorted to, and the same ordeal gone through, but prices were not remunerative.

In 1852 still finer crops were produced, and Covent Garden prices were rather better. So, when the forced crops were disposed of and cold house Grapes were ripe, growers, who hitherto had not known how to turn theirs into cash, were advised to try London. Mr. Crousaz here points out that only the choicest portion of the crop was exported, the result being that the demand for Guernsey Grapes increased, and nearly 3 tons were exported in 1855. So, we see, selection and grading were not overlooked in those days, though some

growers of the present foolishly treat these matters with contempt. In 1857 4 tons were sent; in 1858, 4½ tons, with good prices for first-class fruit; in 1859, 6 tons; and in 1860, 7 tons were sent, and the demand for good Grapes had increased. This justified the erection of more greenhouses. In 1861, 9 tons, and in the following year 12 tons, were shipped, with steady prices for good fruit. In 1863 a fair quantity was grown, but owing to shippers and salesmen having so increased, the market was occasionally glutted, and prices were consequently less. The regulating of the market was now out of the question. It was feared this state of things would diminish the value of the fruit; so the original exporter visited Paris, hoping to find a market there, but the prices would not have been remunerative, and the quantities required were too insignificant to justify the attempt.

FORMER QUANTITIES.—In 1864 the quantity sent was 12 tons, and, other fruit being scarce, steady prices were obtained. In 1865 the prices were not so good, good Grapes selling at 9d. per lb., the depreciation being attributed to glutted markets. In 1866 about 16 tons were sent, good prices being realised from the commencement of the season,

much lighter, as 216 houses only produced 16½ tons, whereas 200 houses the previous season produced 21½ tons. Since the publishing of Mr. Crousaz's book Grape culture has gone ahead; but it is now impossible to know the quantity exported, as the growers nearly all consign directly to the British markets.

VINE BORDERS.—The Vines in the Channel Islands were formerly nearly all in outside borders. Muscats and all others were treated so. Now, however, many are planted in inside borders. Some houses have arched walls, so as to allow a free passage for the roots to either inside or outside borders, but the majority are still outside. When Grapes were first cultivated for market, and since, borders in many cases were much too deep. Then, later, many growers troubled little how the border was made; but now more care is taken in this matter, and nearly all methods have been tried. The English horticultural Press has been closely read by the local grower, and he has tested nearly everything suggested, from carrion to hot-water pipes, in the border; both of these he has long since abandoned.

VINERIES.—Formerly lean-to houses were considered best, but now large span-roofed houses are



A CHANNEL ISLAND VINERY.

selling at 1s. 6d. to 2s. per lb. These prices continued till the month of August, and, owing to scarcity of other good fruit, prices were maintained throughout the season.

In 1867 the season opened well, but owing to an over supply the prices did not hold firm. In many instances good Grapes, after remaining some days on hand, were sold for 6d. and 8d. per lb. Mr. Crousaz here quotes a market report, which states "that from the number of houses recently built and in course of construction, the quantity of Grapes will considerably increase and prices probably fall; and that, as the English, and particularly the Scotch, are developing this branch of fruit culture to a large extent, we may reasonably suppose many towns will cease drawing their supplies from London."

The total quantities exported after 1867 are not given, but referring to the season 1871 it is stated that the quantity sold by one salesman was 21½ tons, independently of what was sold elsewhere. In 1872 the prices were very satisfactory. Early cold house Grapes obtained 1s. 9d. to 2s. per lb., choice fruit even higher. Grapes of inferior quality made as much as the greater part of the best had done in 1871. The crop, however, was

most in favour. A larger area of land can thus be covered at less expense than with the lean-to. Considerable expense in wall building is thus avoided. Of course, more piping and heavier firing are required, for the solid walls of the lean-to keep warmth better in cold, wintry weather.

VARIETIES.—Nearly all new varieties have been tried as they appeared. The majority, however, have proved failures so far as suitability to market culture is concerned. The following may be taken to represent the standard sorts grown in the islands: Black Hamburgh, Muscat of Alexandria, Black Alicante, Gros Colmar, Gros Maroc, Applay Towers, and Canon Hall Muscat. This last is not yet largely grown, but many good growers consider the local conditions as being peculiarly suited to this variety, and hold that, space for space, it will be among the most profitable Grapes. If the hope is borne out by results, there is no doubt Canon Hall will find plenty of growers ready to take up its culture. At present the majority view it somewhat as a "will-o'-the-wisp variety."

PLANTING.—Formerly the canes were planted much too thickly (in some cases 15 inches apart), with the natural result that the fruit grown was

of poor quality, and as the Vines aged so the quality was worse. Now, however, in the majority of cases this evil has been corrected; more space is afforded each cane, although many say that more room still is required. But the grower has to consider this with the present prices of Grapes. He must have a fair crop of Grapes or the vinery will not pay; indeed, the prices of inferior grades have already fallen so low that they leave no profit to the producer, so that in many cases the Vines have been cut out and the houses turned over to Tomato culture. This winter (1902) many more vineries were about to undergo the same treatment. Without doubt this is a wise course as far

and it is now not unusual to hear of a Melon crop being a failure so far as profits are concerned.

When Melons were first started many growers used to allow one plant to cover a good roof space by taking several shoots from it. This is still favoured by some, but the majority now prefer single or double-stemmed plants with the idea of getting a small number of fruits on each, and gathering a crop rapidly so as to allow time for a second planting. In favour of the extension system it is argued that the greater energy of the plant promises better "setting" and that if the plants remain healthy their fruiting season is longer; but the risk is that the stem may canker

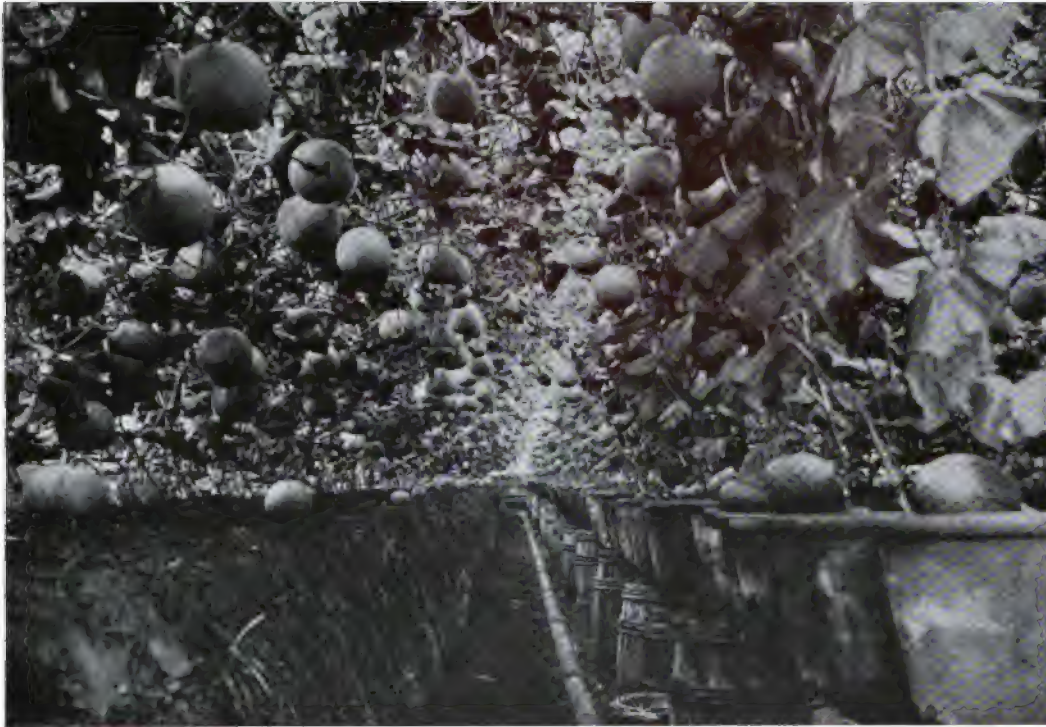
intended to give a few useful hints to those buying fruit trees—more especially Apple trees—this planting season.

Unfortunately, the fruit tree catalogues are not the help to the intending purchaser that they might be. The nurserymen publish what they call select lists of Apples; it may be from 50 to 200 varieties, and, having included any given variety, they seem to hold a brief for that particular Apple as for all the others, and its good points are all mentioned—often exaggerated—and nothing said about its defects. When a man praises everything we do not attach much importance to his commendation. It is no uncommon thing to see an

Apple described in one list as one of the best and omitted altogether from another list. It is doubtful if the perfect Apple has yet been raised. Every Apple seems to have some failing, more or less important, and, if catalogues should mention these, we should be helped in our choice of varieties for our particular conditions. If our soil was a wet one, for instance, we should not be led into planting Wellington (syn. Dumelow's Seedling or Normanton Wonder), Lord Suffield, Mannington's Pearmain, Cor's Orange Pippin, Devonshire Quarrenden, King of Tompkins' County, or Norfolk Beaufin if the catalogues told us that these varieties did especially badly in such a soil, but as a rule they do not mention this fact about these particular varieties; neither do they tell us that Blenheim Orange as a standard shades more ground than almost any other sort, and therefore should not be planted in a garden; that King of the Pippins, which is so much praised for its good looks, is somewhat flavourless unless grown in a warm situation; that Lane's Prince Albert and Stirling Castle in most soils fruit so heavily on the Paradise stock that they make little growth, and should, therefore, be on Crab stocks; that Bramley's Seedling, Striped Beaufin, and Emperor Alexander grow very strongly in good soil, and are a long time becoming fruitful unless well root-pruned; that Old Nonpareil, Marj, Sturmer Pippin, Irish Peach, and Golden Harvey are such feeble growers that they should be planted in very good soil; or that Cornish Gilliflower, Northern Spy, and Bess Pool are shy bearers at any time.

These instances might be extended indefinitely, but enough has been said to show that nurserymen do not tell us everything they know, and that, having put the tree in their catalogues, as a rule they act on the principle of *nil visi bonum*. There are many sorts which might well drop out of the catalogues altogether, and nurserymen would be only too glad to be able to reduce their enormous stocks of trees, while the perplexity of the intending purchaser would be to that extent lessened.

Now it would be rash on my part, or on the part of anyone else, to tell anyone what Apples he should plant. Let a man tell me what he wants to plant, and what his conditions are, and then I may be able to give him some advice which may save him making mistakes. It does not follow that the sorts which are the best for one person are the best for another. One wants dessert Apples for the spring, another for Christmas; one wants handsome Apples to set off the table, another wants the best for the kitchen. We see handsome Apples at shows, and at once think how much we should like to grow those same sorts, not knowing at all how these fine Apples have been grown—perhaps on a wall, or in the most favourable situation possible, neither of which conditions they would have in our gardens. Some of these very beautiful Apples we see are quite ordinary to look at unless grown in the sunniest aspect possible on a warm mellow soil. Similarly some of the finest dessert Apples need very good conditions, not only to bring them to perfection, but to make them thrive at all. Newtown Pippin is a case in point, an Apple which needs a very good summer in this



A HOUSE OF MELONS IN A GUERNSEY NURSERY.

as the grower is concerned, for the only use of inferior Grapes is that they occasionally have been the means of introducing a new retailing customer, who may ultimately become a buyer of the best article. Though this is poor satisfaction to the grower of inferior Grapes, it will be beneficial if it helps to increase the retail market.

THE MELON.

The cultivation of Melons for market purposes was, we believe, practically introduced into the Channel Islands by Mr. James Davis, at one time gardener to the Rev. J. Watson, at La Favorita, St. Martin's, Guernsey. At the commencement of this new branch of the industry small houses with sharp pitched roofs and plenty of piping were employed, and the results were highly satisfactory to the grower. As time went on larger span-roofed houses were planted with Melons, and the plants trained up trellises almost as with Tomatoes. While small houses had a good arrangement for bottom heat, the larger spans had no such provision. Heavy crops were produced by either system; for very early gathering the small house is better. Melons are still largely grown, and in many instances very profitably, though now the profits are less than formerly. The varieties grown are several, and many new ones are tried, but most are the same as those first grown by Mr. Davis, without doubt a selected form of the old Golden Perfection.

In the years following the introduction of Melon culture for market a good profit could be relied upon. Prices were high and very steady, but as more growers began the prices commenced to fall,

at the soil level, whereas with the single or double leader system the risk is much less, as the life of the plant is only half as long. Anything which tends to reduce the risk in a Melon crop is looked upon with favour by the Channel Islanders, as the margin of profit is very different now to the days when a good Melon would make 5s. to 8s. at the end of June, as was the case eighteen or twenty years ago. Those were, of course, the early days of Melon culture in the Channel Islands.

A CHANNEL ISLAND GROWER.

CHOOSING APPLE TREES.

THERE are many different pleasures connected with fruit growing—the choice of varieties and of trees of these varieties, the planting and pruning of the trees, watching the fruit grow, and last, but not least, gathering the fruit. It is the first of these we are principally concerned with here, and, pleasure though it is, it needs no little thought and judgment. Probably all of us have trees in our garden that we would not plant if we had our time over again. We have bought our experience, and this tells us that such and such varieties are either not adapted to our soil or are not such good sorts as we might have for quality or productiveness, or both. When we are planting an Apple tree we are putting something into the garden which we shall probably never do away with if it continues healthy and fairly productive, and as we shall have to look at it, and possibly consume the fruit from it for years to come, we cannot exercise too much care in deciding what to plant. This article is

country to come to perfection, even in the most favourable position. We must first make up our mind what purpose we want the Apple to serve, not only whether as cooking, dessert, or double-purpose Apple, but what season we want it for. The season of a cooking Apple is often much more elastic than that of a dessert Apple, for the Apple which is at its best for cooking in March is probably good in November also, though not perhaps of its full flavour; but it is very rare for a dessert Apple to be really at its best for more than a couple of months, though very favourable storage may increase this duration by a month. Cooking Apples are not necessarily in season as long as they will keep, any more than dessert Apples are in season when they begin to get woolly and mummified, or to smell "at a hundred yards." Such varieties as Warner's King, Stirling Castle, New Hawthornden, and others may be kept till February or March with good storage, but they will have lost their flavour and juiciness. It is much better, instead of trying to keep such Apples out of their season, to grow some sorts which really are at their best in March and April, such as Striped Beaufin, Bramley's Seedling, Royal Late Cooking, and Dumelow's Seedling. Another thing to make up our mind about is whether we want standards or dwarfs. The former are slow to come into bearing, and are very subject to loss of fruit by autumn gales before the fruit is properly matured, but are a valuable asset when once they have reached the age of productiveness. Bushes and pyramids on the Paradise have the advantages of early bearing and of producing fine fruit which can hang till it is fully matured, and they are easy to give slight protection to on just that one critical night which so often comes when Apples are in bloom in the middle of May. These dwarf forms are undoubtedly the best for most purposes; at any rate, for a garden. They possess an especially great advantage for mid-season and late dessert Apples, which are so much improved by hanging on the trees as late as possible, say till the end of October, which is impossible on standard trees. Standards after some years' growth are very handsome when in bloom, getting more so year by year, though the fruit is seldom in any quantity for eight or ten years. As compared with this the following account of the produce of a Warner's King as a pyramid, which was planted at Ramden in Essex in November, 1871, may be interesting. The account is taken from Mr. Cheal's book on "Fruit Culture":—

1872 .. 3 large Apples	1877 .. 7 pecks
1873 .. 1½ pecks	1878 .. 2 or 3 Apples
1874 .. 2 "	1879 .. 6 pecks
1875 .. 4 "	1880 .. 5 "
1876 .. 6 "	1881 .. 4 "

The average for the ten years works out to nearly a bushel a year. I was recently speaking to the owner of the tree—which, by the by, has since died of canker—and he told me that the figures above only included those which were actually picked about Michaelmas, and that the quantity that fell off during the summer and were used for cooking amounted to nearly as much more. This is, of course, an exceptional amount of produce, even for a big Apple like Warner's King, and there is no doubt it was the weakening of the tree from over-cropping which made it fall a prey to canker. But it is very interesting, as showing what may be done with a dwarf tree, and if it kills itself from over-cropping in ten years it has still served us very well in its generation. ALGER PETTS.

(To be continued.)

RUBUS LACINIATUS.

(THE PARSLEY-LEAVED BRAMBLE.)

This is one of the best of the Blackberries. At this season of the year not only is the fruit

acceptable, but the foliage assumes such brilliant tints that one could not wish for anything better for decoration. *Rubus laciniatus* is a delightful plant for covering arches, as the illustration well shows, or for training over fences and old tree stumps. It also fruits more freely than most of the Blackberries. A correspondent writes that he has not met with much success with the American varieties, and does not recommend them, but *R. laciniatus* is an exception, and worth culture in every garden. It grows splendidly when supported by a fence and allowed to ramble at will, and the fruit, which ripens together, not one here and one there, makes a delicious preserve.

AUTUMN STRAWBERRIES.

The alpine varieties are well worth the attention of those who like Strawberries over as long a period as possible, though the fruits are much smaller than on plants which fruit in summer. It will, however, first be interesting to refer to the value of the larger fruited for autumn. The plants give a double crop. Anyone who saw the very fine Royal Sovereign exhibited the end of last month by Mr. Hudson can understand what a valuable addition we have to the autumn fruits when the forced plants are utilised in this way. There is nothing new in obtaining a second crop from forced plants. The method usually adopted is to harden the plants. After the forcing give

flowers. Strawberries that fruit in April would give a crop in July, and May-fruited plants in August, and even later, if desired, by planting for that purpose. But for later supplies the

ALPINE SECTION

is the most valuable. The alpine Strawberries, of which there are now some excellent varieties, should receive more attention. They can be grown without the trouble forced plants entail, and even a small garden may be made interesting, as the alpine require so little space. At the same time to get the best results they need care at the start. The plants when raised from seed are very small, and, of course, need care in handling. There is a diversity of opinion as to which give the best return, seedlings or the runners; but no one who has grown this section will prefer runners, though these give less trouble than seedlings.

Another important point is to consider the best time to sow the seed. This depends upon circumstances. I have seen splendid results both from autumn-sown and spring-sown plants. Doubtless the last is the best time, as the seedlings then make their growth during the most favourable part of the year. Seedlings from seed sown in autumn do not make such rapid progress, but the plants will give fruits at a later date, and a succession is maintained.

With regard to spring-sown plants either March or April is a good time to make the sowing, and large pans or shallow boxes may be used. The soil must be rich and light and the seed sown thinly. The plants when large enough are pricked



AN ARCADE OF THE CUT-LEAVED BRAMBLE IN THE GARDENS OF SLINFIELD MANOR, NEAR BASINGSTOKE.

ample supplies of water, and plant out in land well enriched with manure. Planting is done as soon as the plants are available after the forcing, but care is necessary that the plants are healthy, the roots at the base opened out, the soil well firmed as planting proceeds, and ample moisture given in dry weather. From this date the culture is simple indeed; the first few stray flowers are removed, and none allowed until the plants have got a good hold of the soil in their new quarters. Then, say through July and early August, the flower-spikes are encouraged and fruits secured as required.

The chief points in culture are ample moisture, a rich root run, early planting, and thinning of

out into boxes, say, 2 inches to 3 inches apart, and placed in frames near the glass where a little warmth may be given for a short time, after which cold frame treatment is more suitable. When the seed is sown give a little heat to assist germination, say, an intermediate house temperature, and also after the pricking off for a short time, but do not use strong heat, as it weakens the plants at starting; 50° to 60° are ample at this stage. When a fair growth is secured, say, by June, the seedlings may be given free exposure and be planted out as soon as possible after this date. Place the plants in a sunny, well-drained quarter and in soil not too clayey, but well manured some time in advance



THE GREAT VINE AT CUMBERLAND LODGE.

of the planting if possible. Firm planting is essential, and there should be no lack of moisture in dry weather; indeed, after hot sunshine I have found that Strawberries benefit greatly by a damping overhead late in the day during August and September. The following summer the plants should not be allowed to fruit till required, that is, the first trusses must be removed till the end of July if fruits are needed in September, if earlier the flowers must be allowed to set earlier or none removed after the early part of June.

With regard to the space between the plants, allow, say, 18 inches between the rows. The plants must be kept free of runner growth the first season till the first fruit is set, and later ones will give later crops if too many are not allowed. The second season the same treatment should be followed. More feeding will be necessary and more runners taken away to prevent crowding. The fruits will be plentiful and smaller unless given food, but mere size is no advantage. It is best to slip the fruits from the plant and gather into small bowls or baskets ready for the table to avoid handling them more than is necessary, as being small they should be kept as tempting as possible.

The plants after the second year's crop is taken should be destroyed. Though they would fruit heavily another year younger plants would give much better fruits, and there is no gain in the end. I have referred to runners; if these are grown the culture is almost the same, but I have found the results much poorer. The plants are grown very easily from runners; they should be kept to a given space, as if allowed to run wild the return is very poor. Runners planted in summer will produce fruits the following year, and the space given for seedlings should be allowed with ample food. More room may be given and the late runners retained, or if made in June or July they will fruit in September.

VARIETIES.

I place the St. Joseph in the front rank, as this is a perpetual; it was obtained by crossing the small alpine with the garden variety, and has given good crops from May to October. The later formed runners give the late fruits, as these growths are made while the plants are ripening the first crop. St. Antoine de Padoue is another fine autumn fruiter of the same family, and valuable for late supplies if the runners are taken off and placed in

pots in summer, and the plants grown in frames for the latest supply. The true alpine is a little smaller, but newer additions, such as the Sutton Large Red and a fine seedling grown by Mr. Hudson at Gunnersbury, are valuable additions to this race. The Rouge Ameliore is a true alpine fruit. The Louis Gautier, a white fruit, makes a splendid autumn variety, and La Constante d'Automne is worth room in all gardens. G. WYTHES.

FAMOUS VINES.

ALTHOUGH in the British Isles we can boast of Grapes of the highest quality, we cannot record many notable Vines, and this fact denotes that the extension system in this country is not practised to any great extent. Judging from the few specimens we have there is no doubt that this principle has much to commend it. Perhaps the most recent successful example we have is that of Mr. Shingler's, which was noted in your issue of the 3rd ult.

Of the few famous Vines in England the

one at Hampton Court is the best known, but it is by no means the finest example. This is unfortunate, as it is visited by people from all parts of the world, who have not the opportunities of seeing our best produce, and who, I am afraid, must carry away with them a very poor idea of British-grown Grapes. Those who have seen this Vine must have been struck by the totally unsuitable conditions under which it has to exist. But it is pleasing to know that something is about to be done, which no doubt will place the old veteran in more genial surroundings. This Vine is the oldest in Britain, having been planted in 1768. It is planted at the end of the house, and its roots are mainly outside. The stem at the base is nearly 4 feet in circumference. The Vine covers a house 65 feet long by 30 feet wide. It has been known to carry 1,500 bunches in one year, but of late the crop has been greatly reduced owing to the unsatisfactory condition of the Vine.

The great Vine at Cumberland Lodge, which is an offspring of the one at Hampton Court, revels in much happier surroundings in Windsor Great Park. This year it is in



THE STEM OF THE HAMPTON COURT VINE.

splendid condition, which was shown by the twelve grand bunches exhibited at Chiswick recently. It fills a house 138 feet long by 20 feet wide. Unlike its parent at Hampton, it is planted in the centre of the house, and has the advantage of a good inside border, which has lately been renovated, and this no doubt is the cause of its present robust condition. It was planted in 1778; this year it is carrying 700 bunches averaging 1½ lb. each.

Perhaps the finest example of training on the extension principle is the famous Manresa Vine at Roehampton, and this, I believe, owes its existence more to accident than design. It was originally grown against an outside wall, and now covers a narrow house over 200 feet long, and annually bears large crops of splendid fruit. No doubt this Vine derives a lot of its sustenance from the roots of several Alicante stocks, which have been inarched upon the main stem at intervals. It was planted over forty years ago by the late Mr. Davis, who had just cause to look upon it with great pleasure and pride.

The Vine at Silwood Park, Sunninghill, is not so well known, but it is a splendid example of good culture. It is a descendant of that at Cumberland Lodge, and fills a house 125 feet long by 12 feet wide, and furnishes fine fruit every year. Scotland, I think, can lay claim to the largest Vine in Great Britain. This is the famous one at Taymouth Castle, Lord Breadalbane's seat in Perthshire. It fills a house 172 feet long by 25 feet wide, and is a grand example of methodical training. It was planted in 1830, and annually carries large crops of good Grapes. There is no doubt that the extension system of training gives the best results. It is a well known fact that the fruit from these old Vines is far superior in flavour to that from younger plants. All the above are of the Black Hamburg variety. H. W.

ORCHIDS.

LÆLIO-CATTLEYA NORBA SUPERBA.

CATTLEYA MOSSIÆ and Lælia xanthina are the parents of this hybrid Orchid, which received an award of merit from the Royal Horticultural Society on the 13th ult. The sepals and petals are pale ochre yellow, while the front of the lip is lilac-rose and the throat deep yellow. The marking on the lip is very pretty, consisting of lilac-rose dots, almost merging into each other, upon a paler ground. It is a flower of medium size, in which the soft tints of sepals, petals, and lip associate pleasingly. Messrs. James Veitch and Sons, Limited, Chelsea, were the exhibitors.

THE CALANTHES.

THESE are among the most beautiful of Orchids, and are divided into two sections, evergreen and deciduous, the latter being the more beautiful and useful for decorative purposes, and are in consequence more largely grown. The deciduous species and hybrids, which are the subject of this note, have distinct pseudo-bulbs, often 9 inches high, bearing broad plicate leaves which fall about the

flowering period. The flower-spikes which issue from the base of the bulb are from 20 inches to 30 inches long. They bear numerous flowers, which expand during winter, and last long in perfection when away from smoky centres. The following are some of the most beautiful:—

Calanthe rosea.—Typically rose-pink, but varying from white to dark rose.

C. rubens.—Flowers dark red, lip ruby-red, medium size.

C. labrosa.—The scapes are about 15 inches high, the flowers small, sepals and petals rose-purple, lip of a similar colour, dotted with purple, whitish at base.

C. vestita.—Flowers creamy

offspring in consequence require a high temperature and a moist atmosphere throughout the growing season, and to be cooler and much drier during their resting period.

As soon as the plants begin to grow they should be repotted. Shake away the old compost, and cut off the majority of dead roots, leaving a few to help support the bulb when repotting. The pots must be quite clean (of sufficient size to allow the last made bulb to develop fully without coming into contact with the rim of the pot) and filled one-third their depth with crocks, and over these a thin layer of moss. Fill the pot one-third more with compost. The latter should consist of good fibrous peat freed from all the finer particles, peat, and leaf-mould in equal proportions, with about a sixth part of well-dried cow manure. Add sufficient finely-broken crocks, charcoal, or coarse silver sand to ensure porosity. Mix the whole well together, place the base of the plant a little below the rim of the pot, and fill up with the compost evenly and level to the base of the plant.

Place the plants in a temperature of 65° to 70° by night, and from 70° to 75° by day by fire-heat, allowing a rise of 10° to 15° more by sun-heat, with a moist atmosphere. Admit air according to the weather.

After repotting, though the young growths rapidly advance but little water will be needed until the new roots have well penetrated the fresh compost. The plants may only require watering two or three times during the first five or six weeks, which is the most critical period in the cultivation of deciduous *Calanthes*. Beginners must bear this in mind, and err on the side of dryness rather than water the plants too much in the early stages of growth. If the soil is kept too moist the tips of the roots, as they issue from the base of the young growths, turn black and fail to penetrate the compost. The foliage becomes badly spotted, and the pseudo-bulbs develop unsatisfactorily; the spikes are weak and the flowers small, and seldom properly expand.

When the plants have become well rooted and the growths well advanced the water supply must be gradually increased until the new pseudo-bulbs are beginning to form. Then until the bulbs have fully developed they should be watered with weak liquid farmyard manure. It is almost impossible at that time to give too much heat and moisture both at the root and in the atmosphere. Maintain a temperature of 70° by night and 75° by day, artificially allowing a rise from 10° to 20° by sun-heat, or even more when the house is closed for the afternoon. Ventilate as freely as circumstances will permit, and shade only to prevent the leaves scorching. Keep the plants free from scale, and occasionally fumigate the house as a remedy against thrips.

When the pseudo-bulbs have fully developed (though much less water will be needed), it must not be entirely withheld until the spikes have ceased to grow and the flowers are fully expanded. When the flowers have faded and the spikes taken from the plants withhold the water entirely, and place the plant in a light position near the glass, in a temperature that does not fall below 60° during the resting period. Where space is limited the plant may be shaken out of the compost and placed closely together in boxes in a similar position. F. W. THURGOOD.

Rosslyn Gardens, Stamford Hill, N.

CATTLEYA BOWRINGIANA LILACINA.

THOUGH not so showy as the type, this variety is very delicately coloured and attractive. It has been frequently shown at the Drill Hall recently. It is unfortunate for metropolitan growers that this plant flowers so late. T.



LÆLIO-CATTLEYA NORBA SUPERBA.

white, sometimes with a coloured eye; in this respect very variable. There are a number of varieties of the last-named species, including *gigantea*, bright red blotch at base of lip, a fine variety; *Luteo-oculata*, lip with yellow eye; *Regnieri*, sepals and petals white, lip rose-pink, variable; *Regnieri sanderiana*, flowers large, white, with dark crimson blotch; *Rubro-oculata*, lip blotched in the centre with crimson; *Turneri*, flowers white, rose eye; *Turneri nivalis*, flowers entirely white.

HYBRIDS.

Calanthe Bella.—A handsome hybrid, sepals white, petals blush, lip blush pink, with a deep carmine-crimson blotch at apex of tube.

C. Bryan.—Flowers pure white, excepting the throat and basal portion of the labellum, which are deep purple-maroon.

C. Clive.—Flowers rosy carmine, sepals shading into white, the throat pale orange, the basal part of the lip white, shading into deep rose-carmine.

C. Florence.—Flowers deep rose, with purplish markings.

C. sandhurstiana.—The flowers resemble those of *C. Veitchii* in shape, but are more closely set on spike, and much darker in colour.

C. Veitchii.—One of the most popular and useful of hybrids, flowers rich rose colour.

C. William Murray.—A very fine hybrid, sepals and petals pure white, lip crimson.

CULTIVATION.

The deciduous *Calanthes* are not easy to grow, yet if care and strict attention be given to every cultural detail the plants may be brought to perfection, and they will repay the care bestowed upon them. The deciduous species are natives of the hottest parts of the world, and they and their

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

CINERARIA STELLATA IN THE FLOWER GARDEN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It may appear strange to many to see this *Cineraria* recommended for the flower garden, but I do so without the least hesitation, and I believe we shall see it in general use in a few seasons hence. This *Cineraria* has a free habit of growth, quite unlike the florist's type, and flowers somewhat earlier. For several years I have grown Vilmorin's Sky-blue outside with the best results, but as I have previously stated it must of course have a shady as well as moist soil in which to grow. This year I have given *C. stellata* a trial on a small scale, and am delighted with it. If the plants have a fault it is in their irregular height; they vary very much. Some of the plants will grow from 3 feet to 4 feet high, while others will not reach 18 inches. Therefore they cannot be depended upon for formal beds, but they are well suited for mixed borders, especially where a little shelter is forthcoming during autumn, just sufficient to ward off the early touches of frost.

Of course this is against their general use, but this is the case with hundreds of other annuals and sub-tropical plants. The one thing to be remembered with the *Cineraria* is an early start. The seed must be sown in January or February at the latest in order to give them time to form good plants and to flower early. Those I have planted commenced flowering in August, and are still looking well at the present date, independent of the wretched weather we have had the whole of the summer. They are really first-class wet weather plants, far better in this respect than Michaelmas Daisies, to which they are good companions, or early-flowering Chrysanthemums. I do not know whether it is yet possible to get *C. stellata* in separate colours; if so this would be a good thing, as there are so many objectionable colours in the mixed ones from seed. The colours most suitable for the flower garden are the greys, blues, whites, and mauves. These mixed with Michaelmas Daisies are splendid. We have had just sufficient frost to cut the Begonias down in the open garden, but the *Cinerarias*, which are sheltered by trees, have not yet suffered. There are some laggards among them, and these have been lifted and placed in pots, and are standing in a cold frame, where they are fast expanding their fine heads of flower. They lift with good balls of earth and suffer very little indeed. The lights are removed on dull days, and they soon become established and flower freely for a long time. *Cinerarias* like rich soil with an ample supply of moisture; drought will soon ruin them.

Cirencester.

T. A.

FRUITING OF ARAUCARIA IMBRICATA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—On page 289 Mr. Strugnell draws attention to the somewhat rare occurrence of the fruiting of this Pine in Britain. That this should be a rarity is remarkable considering that when a tree once begins to fruit it continues to do so with great regularity afterwards, whereas others growing near, though equally as large and healthy, never produce the semblance of a cone. Then, again, one tree may mature perfect seeds freely, while others are very remiss in this respect. The instance cited by Mr. Strugnell is that of a tree growing in England. I am, however, acquainted with one in Scotland which is in many respects very similar. This tree, which is growing upon the lawn at Castle Wigg, Whitthorn, in the lower district of Wigtownshire, is about 50 feet in height, and has for at least twenty-five years past produced cones and fertile seeds almost annually, from which seedlings, some of which have now attained con-

siderable size, have been raised from time to time. It is probable that this tree was planted shortly after the introduction of the species into Britain, and, occupying as it does a sheltered situation in soil that is rich, deep, and moist, it has thriven most satisfactorily, and forms a very conspicuous object at any season, but more especially so when from twenty to thirty large cones bearing a close resemblance to Cocoanuts are dotted about at irregular intervals upon its branches. In near proximity are other trees apparently of equal age, but with the single exception of one male plant I believe none of them have ever been known to produce a cone of either description. On the Galloway House estate adjoining there were formerly some very fine plants of *Araucaria*, but the severe storm that swept over the country a few years ago spoilt many of them. Of all these there was but one plant, and that a male, which still survives, that ever, so far as I am aware, produced a cone. To produce fertile seed both sexes must, of course, be located near each other; the absence either of one or the other is in many cases probably accountable for the infrequency of cones, and, consequently, seed production. Could



MR. F. Q. LANE.

this be foreseen when the plants are young so that an equal distribution might be made when planting it would greatly simplify matters, and the interest in this somewhat peculiar tree would be enhanced.

JAMES DAY.

Galloway House, Garlieston, N.B.

DISEASE-RESISTING POTATOES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I quite agree with your correspondent, A. Dean, when he says that no variety of Potato in existence in its leafage is quite disease resisting. There have been many varieties introduced in recent years called disease resisters, but a season like the one just passed has shown how few are the varieties that can claim this merit. At the time the late Mr. Clarke gave us (through Messrs. Sutton and Sons) his famous *Magnum Bonum* almost all other varieties then in commerce looked like being exterminated by disease, and certainly for a number of years *Magnum Bonum* might truly

be called disease resisting. Evidently the cause of its freedom from disease might be found in its possessing an abundance of wood tissue in its stems, with a small amount of leaf surface. I have invariably found that the more luxuriant the leafage the greater the amount of disease. For a number of years the earlier varieties escaped the disease owing to the earlier ripening, as the fungus cannot live on a ripening leaf, but with the cold springs we have experienced in recent years the growth of early varieties has been so checked that they with the late varieties have been in full leafage in August, when the disease generally makes its appearance, especially with such wet weather as we had last August; consequently early and late varieties suffered equally from the disease, with few exceptions. The varieties that came out best here were as follows (the figures after the name denotes percentage of diseased tubers):—

Fidler's Seedling	0
Kerr's Bobble Burns	1
Findlay's Evergood	1
" Royal Kidney	1
King Edward VII.	1
Sutton's Favourite	1
Kerr's Duchess of Buccleuch	2
" Model	2
" Cigarette	2
The Factor	2
Kerr's General Roberts	2
Sutton's Windsor Castle	3
" Reliance	3
Sir John Llewelyn	3
Webb's Industry	3
" Goldfinder	4

The above were the best out of 100 varieties, but, taking the last four years, I have had nothing better than Kerr's Cigarette for crop, quality, and handsome appearance.

J. H. RIDGEWELL.

The Gardens, near Histon, Cambs.

MISCELLANEOUS.

NOTES FROM BERKHAMSTED.

IF from no other cause, Mr. Lane and his Berkhamsted nurseries have earned a wide reputation by the introduction of that universally popular Apple Lane's Prince Albert. The origin of this famous Apple is somewhat obscure, but it first appears to have been heard of in the early forties, when the late Mr. Lane discovered it growing in a local garden, and, recognising what a good thing it was, secured the stock, propagated and distributed it. The merits of this Apple have been so generally recognised and so favourably commented upon that to-day it would be difficult to find a garden of any size that does not contain trees of it.

The original tree is still in existence in a Berkhamsted garden, which, by the kindness of Mrs. Barratt, we were enabled to see. An attempt was made to photograph the tree, but it was raining heavily and the wind was high, so that our efforts were almost foredoomed to failure, and so it proved. The tree still bears good crops of fruit, although this year, in common with most other Apple trees, its yield of fruit has been a scanty one. This Apple came by its name in the following way: Her late Majesty Queen Victoria and the Prince Consort were driving through Berkhamsted in state upon the occasion of some local incident of importance, and as about that time the Apple had been discovered by Mr. Lane and was not yet christened, the visit of the Prince Consort suggested a name, and so Prince Albert was decided upon. The introducer's name, however, has always been closely identified with this Apple, and one usually hears it spoken of as Lane's Prince Albert. To its enormous cropping capacity when grown as a bush in garden soil we can speak from personal experience, and we have heard equally good accounts of it as a standard.

The nurseries of Messrs. Lane and Sons have other claims to distinction besides the introduction of this valuable Apple. Pot Vine culture has long been a feature there, and still is largely practised. Upon a recent visit we were shown several houses full of "cut-backs" and of canes from eyes inserted this year. Both show the results of good culture, for one might go far without seeing stronger canes and better buds. Some of the houses are already partially cleared, for the demand for pot Vines is always a regular one. It is interesting to note the variation of colour in the foliage of the different varieties; some are most brilliant, while others are simply green and yellow. The two whose leaves are most richly coloured appear to be Madresfield Court and Gros Colmar. Both these are almost worth culture for the autumn tints of their foliage alone. Several sorts of Grapes not usually met with in gardens are grown by Messrs. Lane; for instance, the Strawberry Grape, Grizzly Frontignan, Dr. Hogg, Ferdinand de Lesseps, and others. Fig culture in pots is another noteworthy feature in the Berkhamsted nurseries, and a representative collection of varieties is grown. It is not our intention now to refer at length to the outdoor fruit trees in this nursery, which, however, are grown by the thousand, and a large portion of the extensive nursery ground is devoted to them.

Mr. F. Q. Lane, whose portrait we are pleased to be able to publish, is well known in the horticultural world as head of the firm of H. Lane and Son. Mr. Lane is a prominent member of the fruit committee of the Royal Horticultural Society, and, although not a frequent exhibitor, always has something of unusual interest to show when he sends an exhibit from the Berkhamsted nurseries. Mr. Lane has for long taken a deep interest in local affairs; he is a Justice of the Peace, and since 1894 has been chairman of the Berkhamsted Board of Guardians, and also of the Rural District Council.

GARDENING OF THE WEEK.

KITCHEN GARDEN.

ASPARAGUS FORCING.

PROVIDED that plenty of good strong roots that have been several years in the bed are obtainable, there need be no difficulty in producing abundance of this much-valued vegetable throughout the winter. The plan of erecting a bed of stable manure and leaves in a sheltered part of the garden and placing thereon a frame is as good as any, and the excellent results I have always obtained by this simple method induce me to recommend it. The material need not be turned before putting it into a bed, for by using about half tree leaves the warmth will be steady and last for a long time. Now that the tops have died down some roots may be lifted as soon as the bed is ready to receive them. A layer of half-decayed leaf-mould should be first placed in the frame for them to rest upon, and some of the same material be worked in the interstices of the roots. Assuming that an ordinary sized three-light frame is utilised and the number of heads required at one time is not great, then one light may be filled with roots now and the second and third at intervals of a week or ten days. A regular supply may then be obtained, and when the produce is cut from those

first inserted they may be turned out and destroyed, and after removing two or three barrow-loads of the fermenting material and replacing with fresh warm manure another batch of plants may be put in that may be expected to produce heads to follow up those inserted last. Frequent linings will be necessary to maintain an equable temperature. As each batch is put in afford a good watering with warm water, and, whenever any more is required, let it be of the same temperature as the frame, viz., about 55° or 60°. To hasten the production of young heads the lights must be kept close and covered with mats for a few days, but when they appear through the soil gradually inure them to light and air.

BROCCOLI.

Two really good varieties with us this year are Self-protecting and Michaelmas White. Both are excellent in quality, and, although not large, are of a nice size for the dining-room, and, following up closely the Autumn Giant Cauliflower as they do, prolong the season considerably. Look well to affording protection to any remaining heads. Later varieties will now need protection, for should we experience severe frosts and snow in the near future, as we may now reasonably expect, the soft stems will become injured. Heeling the plants over with their heads facing the north is an old-fashioned plan of protecting them, and I know of nothing more effectual.

Stonleigh Abbey Gardens.

H. T. MARTIN.

FLOWER GARDEN.

PLANTING.

NOVEMBER is one of the busiest months in the flower garden in many respects. After the soaking rains we have had lately careful note should be taken of the conditions of the soil in regard to its drainage. If the soil is of a sticky, muddy character, and remains so long after rain has ceased, be assured that the drainage is not sufficiently perfect to produce healthy plants, and should be seen to at once. General planting may now be proceeded with in soils that are reasonably workable. It is certainly of no use planting in mud, nor when water is found to drain into the holes dug for the plants. In such cases it would be better to wait until the ground is sufficiently dry. Not yet should planting be proceeded with in wet weather.



APPLE LANE'S PRINCE ALBERT.

If plants happen to arrive at such a time just heel them in and wait until circumstances are conducive to successful planting, then get in as quickly as possible all Roses and general shrubs it is desired to grow, especially of those kinds that are usually drawn from the soil. At this period of the year the majority of plants are dormant, and can be lifted without injury to them. Of course, it is advisable to plant as soon after lifting as possible, and not to expose the roots to the weather more than is necessary.

SPRING FLOWERS.

Many of the beds that now have been cleared of summer-bedding plants and are to be utilised for a similar purpose another year may be planted with spring flowers that are waiting removal from the reserve garden. A great point in the planting of these temporary things is to regulate the work in such a way that beds required early another year may be filled with plants that are quickly over or the sacrifice of which while yet in flower is not much regretted. Wallflowers I consider the most useful spring flowers we have, and the variety of shades has undergone considerable improvement within the last few years. They also, generally speaking, stand our ordinary winters well. Polyanthus may be used largely if plenty of time is available in late spring to clear them away and prepare the beds for summer plants.

WALLFLOWERS, POLYANTHUS, AND MYOSOTIS.

In places where there are no means of forcing plants of the usual forcing type there is no need for an absolute dearth of flowers in spring or immediately preceding spring. If only a batch of these sown at the usual time and transplanted once were now lifted with good balls of soil and carefully potted up, well watered, and stood under a north wall for a few days they will scarcely lose a leaf. They could then be placed in a cold frame to be brought on gently later.

Ashwellthorpe Gardens, Norwich.

T. B. FIELD.

FRUIT GARDEN.

PEACHES.

To have May Peaches the house should be ready for closing by the end of this month. If the roots of the trees have the range of internal borders it will be necessary to see that the soil is in a nice

growing state quite down to the drainage, while those running outwards will require some kind of covering to protect them from the chilling influence of rain and snow. It is not, however, at all imperative that the roots have an external border, as the finest fruit may be grown for a great number of years where the internal space is extremely limited, provided the borders are frequently renovated with fresh maiden loam, top-dressed with good rotted manure, and well fed with a liberal hand throughout the growing season. This will require turning occasionally to liberate moisture, and the trees must be syringed twice a day when fine, care being taken that the second syringing is performed early in the afternoon, as it is not well to have the buds loaded with moisture at nightfall. Let the temperature at the outset range from 40° to 45° at night, and 10° higher by day.

HARDY FRUITS.

When the root lifting of pyramids and bushes has been brought to a close the renovation of older ones should receive immediate attention. In many old gardens we often find trees of large dimensions to which the modern system of root lifting cannot be applied, or, if it is attempted, one side only should be operated upon in any one season, and when the strong roots which have been cut have made new roots into fresh compost the other side may be treated in a similar manner. If the trees are healthy and crop well, and disturbance at the tap-root is not considered necessary, the quality of the fruit may be greatly improved by the entire removal of the surface soil quite down to the roots, replacing it with fresh compost consisting of good loam, road scrapings, charred refuse, and rotten manure. The heads of standards may be thinned preparatory to the removal of loose bark and moss, when all the strongest branches may be washed with a mixture of soot, lime, and stiff loam reduced to the consistency of paint with strong soap water, 2lb. to the gallon.

PRUNING.

Where much of this work has to be performed advantage should be taken of the mild weather which generally prevails through November for getting this operation well advanced. Commence with Currants, Plums, and Cherries; thin out and tie up Raspberries, but defer shortening the tops until the spring. Mulch heavily with rotten manure when the weather is favourable for wheeling, and avoid all digging or disturbance of the surface roots. If new plantations have to be made now is a favourable time for getting in the canes. The Raspberry enjoys a light, rich soil, and produces the finest fruit when grown in single rows running north and south, and trained to a V-shaped trellis, which admits of the young growths rising up the centre.

Madresfield Court.

W. CRUMP.

INDOOR GARDEN.

THE continued wet and dull weather will render the use of a little extra fire-heat necessary in all houses that are filled with plants requiring a stove or intermediate temperature or the atmosphere will become stagnant and heavy, and under such conditions soft-wooded plants are liable to damp. For Malmaison Carnations a little heat in the pipes, excepting during bright intervals through the day, is very important; this must, however, be accompanied with free ventilation night and day. Should any sign of rust appear on the foliage out off the affected parts and burn them at once; and should the attack be severe it will be necessary to go over them daily. Several remedies have been suggested for the destruction of this parasitic fungus, and, apparently, with only partial success. Some few years ago the plants under my direction were affected seriously with it, but by adopting a certain method of treatment for about two years I was rewarded with a clean stock. The section of

PERPETUAL FLOWERING CARNATIONS

will thrive perfectly during the winter with practically the same treatment as recommended for Malmaisons, but with this difference: that should bloom be required a temperature 8° to 10° higher will be necessary. As an autumn and winter-

flowering variety of the Malmaison I have not yet found one to surpass Sir C. Freemantle. Nerines now in flower should be grouped in a light and dry house to prevent the flowers being affected by stagnant moisture.

CHRYSANTHEMUMS

now coming into bloom should receive regular supplies of clear liquid manure, of which soot forms an important constituent. Salvias in pots also require a liberal allowance of stimulant, and should not become dry at the root or the foliage will drop prematurely and the effect of the plant be lost.

BEGONIA GLOIRE DE LORENAINE

requires free ventilation with a genial temperature of 60°. Avoid packing the plants too closely, as a free exposure to abundance of light is necessary to develop the embryo flower-buds, and guard against an excessive use of stimulant, or the plant becomes too sappy. B. Gloire de Sceaux should now have a stove treatment and be allowed plenty of room to enable the plants to develop fully their fine foliage. Pay every attention to the stock of young Crotons; remember that heat, moisture, and light are three important essentials. Adopt means to keep in check red spider, which is a great pest to this plant; if a bottom-heat of 75° can be given them the plants retain their foliage much better.

SWEET PEAS

in pots for spring flowering should now be sown; 8-inch or 10-inch pots are the most suitable sizes in which to grow them. A good friable loam with one-sixth part of old Mushroom-bed manure will meet their requirements as to soil. Sow the seeds thinly after the pots are filled two-thirds full with the compost, and place them in a cool house until germinated.

Wendover.

J. JAKES.

CHRYSANTHEMUMS.

NEVER can I remember such an unfavourable season as the present one for the developing and perfecting of large Chrysanthemum flowers, and I fear shows which are fixed for a late date will suffer. The flowers expand rapidly, owing to a large extent to the unripened wood, and before they are properly developed the flowers begin to show signs of distress. It is absolutely necessary with the continuous wet, dull weather to keep the pipes warmed to prevent damping, and unless we soon get a spell of drier and cooler weather the season will be a very short one.

Examine the flowers daily and carefully remove those petals which show the slightest tendency to damp, and those which are nearly expanded should be removed to a dry room and very little water given if required for any special date, when they will be found to keep fresh for some time.

Many of last year's novelties are grand acquisitions, that fine variety Miss Mildred Ware being exceptionally good, especially on the second crown bud. I regard this as one of the finest varieties of recent years. H. Perkins is also another very pleasing variety, the colour being fine when taken on the second crown bud, and the type all that can be desired. It reminds me of Le Sceptre Toulousain when at its best, except that the colour is better and the blooms rather larger. There are also many others of great merit.

POMPONS.

These are promising well, and, fortunately, do not suffer from damping. Medium-sized bush plants make a splendid show, and no attempt at stiff training should be made. Merely support the growths by looping them up to one central stake. A moderate amount of feeding should be given till the blooms are fully developed.

SINGLES.

These are more popular annually, and rightly so. During recent years a great improvement has been effected in this section, both in the growth of the plants and colour of the flowers. Those varieties which hold themselves erect and are of medium size are the most beautiful and useful, and either for conservatory or cut decorations are invaluable, many of them under artificial light being exceed-

ingly useful. These require similar treatment to the Pompons, and by late stopping may be had in perfection in midwinter.

LATE-FLOWERING SORTS,

which have been specially cultivated for decoration during the coming winter, and have been so far under temporary shelters, should now be removed to a place of safety under glass. Arrange these in the coolest houses available; late fruit houses are best adapted for them. The plants should be thoroughly cleaned and the necessary tying done just sufficient to prevent them from breaking. Moderate disbudding should be done, care being taken not to do this too severely, and the varieties, of course, should be taken into consideration. Thoroughly fumigate the plants to rid them of all insect pests several nights in succession, and use plenty of sulphur on the under sides of the foliage to prevent the spread of mildew. Should rust be present syringe the growths with a solution of paraffin and water as advised in the earlier part of the season. Large plants in small pots will require liberal feeding with manure water, and give occasional doses of Clay's or some other reliable patent manure. Many of the late border varieties are promising well, and should the weather continue open these will brighten up the outside garden for some time, and are worth a little protection should severe frosts be imminent. Any which are planted at the foot of south or west walls, and a capital plan it is, especially when glass accommodation is not sufficient, should be protected both from wet and frost, which can easily be done when in such a position.

E. BECKETT.

Aldenham House Gardens, Elstree.

NURSERY GARDENS.

MESSRS. WARE'S TUBEROUS BEGONIAS.

BEAGONIA time in Messrs. Ware and Sons' Bexley Heath Nursery reminds one forcibly of Tulip time in Holland. It may perhaps seem something like exaggeration to state this, and before visiting this firm's tuberosus Begonias we ourselves should have been sceptical as to the accuracy of such a statement, but now we have no hesitation in allowing it to pass. One enters Messrs. Ware's Begonia fields from the public road, in fact the beds are visible to passers-by, and during the season they avail themselves of the invitation extended by the firm to make a tour of the nursery. Tuberosus Begonias are here grown by the thousand, we might say hundred thousand, and are planted in long narrow beds running from one side of the oblong-shaped field to the other, paths, of course, separating the beds so as to allow of attention to cultural work. The Begonia field covers almost three acres of land, and is some 240 yards long, with a walk down the centre. As seen from the entrance to the nursery

THE DISPLAY OF COLOUR

is altogether remarkable. On either side of the central path, in an endless variety of pure and rich colouring, are masses of tuberosus Begonias, the singles on the one side, the double varieties on the other. Of the doubles the whites are immediately in front of the onlooker, and allowing the eye to wander farther afield, stretches of scarlet, pink, salmon, red, orange, yellow, bronze, crimson, and rose come into view in quick succession. On that side of the field devoted to single varieties the wonderful display of colour ranges through magenta, pink, white, crimson, scarlet, yellow, bronze, orange, salmon, on to the fancy varieties, which comprise flaked, splashed, and striped Begonias. Truly it would be difficult to find a more brilliant display of plants in flower in the country than Ware's tuberosus Begonias made a few weeks ago. The range of colouring is such as is possessed by few hardy flowers, and in addition to this

THE INDIVIDUAL BLOOMS

are in most cases of great excellence, both as regards form and habit, that is to say, they are held well

above the foliage upon strong, stout stalks, and do not hang their heads. Some of the double blooms, in fact the majority of them, have been made of such perfect form by skilful and long-continued

SELECTION AND HYBRIDISATION

as almost at a little distance to make it difficult to say whether they were tuberous Begonias, Camellias, or even Rose buds. This, again, may appear to be a somewhat exaggerated statement, but we doubt if anyone would question its reliability who had paid a visit to Messrs. Ware's Begonia fields when the plants were in full flower. The form of the double whites was particularly good, and the centres of the flowers were perfect. Messrs. Ware's manager at Bexley Heath has long been a worker among tuberous Begonias as well as other flowers, and his painstaking and well-directed efforts in the improvement of these popular summer-blooming plants have met with great, we might almost say unique, success. It seems almost incredible that

THE REMARKABLE DISPLAY

of some three acres of plants in brilliant bloom is the result of seed sown on January 27 and 28, 1903; thus only some eight or nine months elapse between the time of seed sowing and the plants being at their best. When one realises what can be done in the way of imparting beauty and rich colouring to a garden at the cost of comparatively little outlay and labour, it seems strange that more advantage is not taken of such opportunities, and, taking the case before us, that tuberous Begonias are not more largely planted. They have the

ADDITIONAL ATTRACTION,

if any were needed, of doing even better in a wet season than in a dry one; and when gardeners are almost at their wits' end to know what to plant for the best, now that wet summers appear almost to be a certainty, the tuberous Begonia will undoubtedly prove a most important and valuable plant. What a long time it remains in bloom! Flowers appear in quick succession over quite a long period; so that from August to November one need never be without. Messrs. Ware save all their seed from plants carefully tended under glass.

BEGONIA SEED

is very minute and easily lost, and, moreover, the various colours must be kept distinct, so that it becomes essential to keep under close observation those plants from which the seed is obtained. We were initiated into the mysteries of seed saving from double flowers, from certain unusually good varieties (for it is notorious that the best varieties are mostly shy seed bearers) and from what we may call freak varieties, which include the crested forms and those whose petals are splashed, striped, and flaked. The plants are starved so as to arrest leaf growth and encourage the formation of flowers and, eventually, seed pods. It would take too long to enter fully into the work of selection and hybridisation, which Messrs. Ware practise so carefully and with such good results, but we have probably said sufficient to give the impression—an impression that we left the Bexley Heath Nurseries with—that Messrs. Ware's tuberous Begonias may be equalled, but are not surpassed.

CHRYSANTHEMUMS AT MERSTHAM.

Messrs. W. Wells and Co., of Earlswood Nurseries, Redhill, owing to the rapid expansion of their business, have found it necessary to increase the accommodation for their large stock. An extensive range of glass and 4½ acres of land at Merstham have therefore been acquired, and the whole collection of show blooms is staged this autumn on the new ground and in a large double-span greenhouse 126 feet by 54 feet. Size and quality are always strong features in the Wells' collection, and, although the wet season has proved to be a very trying one, yet the high average quality has been maintained, and the display is a remarkably fine one.

At certain intervals large groups of one variety are placed together, forming a most striking feature. Of these one of the grandest is that composed of big Japanese incurved blooms of the

Colonial crimson W. R. Church. Then we come close by to another in which Mrs. George Mileham makes a fine display. W. Duckham is one of those massive Japanese incurved flowers with very broad florets, colour fine rosy pink, with a silvery pink reverse, and a group of about fifty blooms of this variety all together has a most effective and unusual effect. Mrs. Rumble is a finely-shaped flower with drooping florets, colour a pretty pale shade of bluish. Of a rich purple amaranth with rather broad florets and a silvery reverse is F. A. Cobbold; Mr. Higga, golden ochre yellow, tinted chestnut. In brilliant full-sized crimson of bold Japanese incurving form Meynell will certainly occupy a foremost place. It has substantial grooved florets, with a fine golden bronze reverse. Several others—Mrs. J. Wells, S. T. Wright, Godfrey's Pride, and Lord Alverstone—take high rank in this colour. Britannia is one of the modern yellows, clear and bright in tone; Beattie Godfrey is another, and is large and attractive, these and all those previously mentioned belonging to the Japanese type. Very large in size is W. A. Etherington; it has long intermingling florets, the colour being a peculiar soft salmon rose tinted pale purple. Calvat's seedlings of the past season include Mme. L. Chevrant, one of the prettiest of the modern Japanese. The colour is a charming shade of pale soft rosy pink. Another of his recent acquisitions is the variety named after the celebrated grower Mr. F. S. Vallis. This is of good size, with long reflexing florets, forming flowers of deep build, the colour being a remarkably pale shade of pure canary yellow. Mrs. T. W. Pockett, to our taste, is a prettier bloom, for the florets are not so straight, but curl and twist in a graceful way that relieves the blooms of any appearance of strict uniformity such as is characteristic of the previous named variety.

Miss Mildred Ware is rosy bronze, a large, drooping-petalled Japanese of recent introduction. Here and there throughout the collection we get glimpses of many fine-looking novelties, but these in many cases are unnamed seedlings that have yet to be proved. Certain it is that the majority of them are destined to come sooner or later to the front. Mrs. E. Thirkell, a tall back-row plant, has fine flowers with long, drooping petals; colour bright shade of golden canary-yellow. In the same glowing colour is Louis Leroux, a wonderfully deep flower with broad, grooved florets; and close at hand, towering high above its neighbours, is General Hutton in numerous examples, all of immense size, with rather stiff florets of great length, the colour yellow, slightly tinted carmine.

A brief mention of just a few others that find a place in our note-book must be made, and then our remarks must draw to a close. Mr. T. Carrington, Miss Stopford, a big white; Miss O. Miller, pale rosy purple; Lelia Filkins, lilac-mauve; James Fraser, yellow; and Merstham Yellow, a new seedling to be sent out next spring, are all varieties more or less likely to be heard of again.

Down one side of the house in which the collection is staged is a remarkably fine bank of seedling singles; for the purposes of decoration there is nothing at this season to equal them. They range from the purest white through all shades of yellow, buff, pink, and rose to the deepest crimson, and we do not remember ever seeing so fine a display composed entirely of these charming subjects.

PUBLIC PARKS AND GARDENS.

CHRYSANTHEMUMS AT WATERLOW PARK.

ONE is amply repaid for their pilgrimage to this prettily-situated park in North London when the Chrysanthemum season proper begins. As a rule the plants are very well done here, and the present season's display is no exception to the general rule. No less than 2,075 plants are grown in pots for the annual display, and in the collection almost every

type of the flower is represented. Mr. D. Carson, the able superintendent, shows much wisdom in making his collection so representative. There are some 133 Japanese varieties, 35 incurved, and a goodly array of pretty free-flowering decorative varieties, besides those of the Anemone and hairy types of the flower. The plants, which are much dwarfer than usual, are neatly grouped in the unusually spacious glass structures. Many old and familiar sorts were in evidence, and in several instances appeared to be doing well. Mrs. A. H. Neve, a rather tall plant at the back of the group, was developing handsome Japanese blooms of a silvery bluish colour, and was proof of the splendid character of this variety that was introduced a decade since. The blooms of Mrs. Coombes were splendidly coloured, a pleasing pink aptly describing it. W. R. Church, a rosy crimson incurved Japanese, was in good form, as were the blooms of Vivian Morel and Charles Davis. Soliel d'Octobre had been in good form, and was just finishing, the soft canary yellow blooms being much admired. Florence Molyneux, grown on single stems and flowered on the break bud, was giving large and handsome white blooms of good quality. Buds of Mrs. W. Mease, the primrose sport from Mme. Carnot, were promising well, and the near future should see very fine blooms of this variety. Phœbus, the reliable yellow Japanese that has so long maintained its high position, was represented by pretty blooms. Hairy Wonder, the best of the Japanese blooms, having hirsute appendages to the petals, again asserted its superiority; its pretty cinnamon colouring is pleasing. A Continental variety named M. Roissard, which we do not remember seeing catalogued anywhere, is a promising plant. The colour is a purple amaranth, with a silvery reverse. Plants of Margot are grown in large numbers, and are flowering freely in order to cover up the bareness of the walls in the vinery, and they create a delightful effect.

Mr. Webb, the enthusiastic grower here, complained of the damping of the blooms, and he, like many other cultivators, fully expects trouble in this respect generally this season. Green and immature wood invariably results in the blooms damping.

SOUTHWARK PARK.

ALTHOUGH we have for many years paid an annual visit to the Chrysanthemum exhibition at Southwark, we do not remember ever to have seen the plants in so fine a condition as they are this year. Speaking of them as a whole, the quality and size of the blooms are distinctly above the average, the plants are in a healthy condition, and the colours bright and clean. Considering the disadvantages of the neighbourhood there is good ground for congratulation, and the variety at Southwark is always considerable, for most of the sections are very evenly and well represented. In plants there are about 2,000 on view, and these comprise upwards of 340 varieties of incurved, Anemone, hairy, and Japanese sorts.

To such an extent is the show appreciated in this busy, densely crowded part of South London, that on the first Sunday the show was opened this season visitors formed one continuous throng the whole day through. This deep interest is not, it must be understood, confined to Southwark alone, for on Saturdays and Sundays we have experienced on many occasions great difficulty in viewing the shows in some of the other parks. Whatever may be said as to the decline of the Chrysanthemum from a purely competitive exhibition point of view, it is abundantly evident that the general public in the vicinity of these gratuitous County Council displays very highly appreciate them. So on the first Sunday of the present season 8,496 persons passed through the T-shaped greenhouse, near the Gomm Road entrance to Southwark Park, where the collection is, as usual, staged.

As most of the varieties are well-known favourites, we need not do much in the way of describing the individual flower. Old-fashioned growers whose tastes still linger with the incurves will find good examples of Queen of England and many others.

Large-flowering Anemones lend a pleasing variety to the display, more particularly in the case of Descartes, a very large wine-coloured variety of great attractiveness that is constantly being used so freely in the decorative arrangement of the group.

Hairy varieties, once a striking and effective feature of this display, are now represented by reduced numbers, a few of the best only being retained, King of the Hirsutes, Hairy Wonder, and Beauty of Truro being those that appear to call for the greatest commendation.

In Japanese, what can we say but that the Southwark collection comprises all that is interesting and best for such purposes as a public display? In the richer and deeper tones of purple, amaranth, and crimson, there is an abundance of colour in all the best varieties. Altogether the collection is extensive, interesting, and peculiarly attractive, and we are not at all surprised at the great interest displayed by the inhabitants of this large and busy district, many of whom have no other opportunities of seeing gardening in so attractive a form.

BROCKWELL PARK.

THERE is a small collection of Chrysanthemums on view again this year at Brockwell, but the display is marred to a large extent by the very inadequate accommodation allotted to the plants. Only a very few persons can gain access at one time to the conservatory adjoining the refreshment-room, once the residence of the former owner, and even when entrance is effected, the place is so constructed that a near inspection of many of the plants is out of the question. This is all the more regrettable when we consider the locality, which is populated by a class of resident that must be highly appreciative of a good autumn display of Chrysanthemums, such as the other more favoured parks can boast of. The collection is largely comprised of big show blooms, with here and there a few plants freely flowered and tastefully arranged for decorative effect.

BATTERSEA PARK.

THE autumn display in this park is unquestionably one of the most effective in the Metropolis. The specimen blooms are beautiful, bright, clean examples that are above the average standard of development. The collection is arranged in a long undulating bank of bloom interspersed with a few large foliage plants, the ends and front of the greenhouse being almost carpeted with the blooms of a large number of freely-flowered Pompons and decorative Japanese. The old show incurred is grown here in much the same way as at Victoria Park, and there are some very nicely-finished blooms of several members of the Queen family, Baron Hirsch, the rich golden-chestnut variety; Jeanne d'Arc, Mrs. W. Shipman, Globe d'Or, Prince of Wales, and other members of this old-time favourite section.

Anemones, although somewhat sparsely represented, have some noble examples of the section. When we come to the Japanese, there is an immense wealth of colour, and finely-finished blooms of great merit. We notice the eminent French raiser, M. Calvat, is strongly in evidence, the following seedlings of his, all too well known to need description, being those that are the most conspicuous: Soleil d'Octobre, Mme. Gustave Henry, Mme. Ed. Roger, the green variety; President Borel, very rich bright purple; N. C. S. Jubilee Louise, a noble solid-looking pearly-white Japanese incurred of great merit; President Nonin, Le Grand Dragon, Souvenir de Petite Amie, and others.

Varieties from other sources are numerous and not less meritorious. In whites the gigantic Florence Molyneux is an object-lesson in size, and Lady Byron and Mermaid are others. Among the monster back row flowers Mrs. White Popham is eminently attractive; Mr. T. Carrington and Australie are worthy companions from that standpoint. The Viviani Morel family has all its members in good form. Some of the softest and most delicate shades of rosy pink and silvery blush

are shown in Emily Towers, Mrs. George Mileham, a grand variety, and Mrs. Coombes. Some of the best of the fairly recent yellows are Vicar of Leatherhead, very large spreading Japanese; Mrs. T. W. Pockett, a beautifully-built flower, and certainly an ideal form in every respect; and Mrs. Greenfield. We well remember the time when crimson was a colour rarely to be met with in the Japanese type. Now when we look round a show we see the colour, rich, deep, and gorgeous in ever-varying tones. William Seward is not new, but Henry Weeks and W. R. Church are two of those that are brilliant examples of highly-coloured crimson modern-raised varieties.

In bringing these notes to a conclusion we will mention Duke of Wellington, a massive Japanese incurred with broad grooved florets; Matthew Hodgson, and Eastman Belle, which, besides possessing the once-desired colour, have also the further advantage of size, which enables them to be used with great effect in miscellaneous groups.

AUTUMN RASPBERRIES.

THE season for these fruits has been one of the worst I remember, even in the southern part of the country, and this will make growers who have only a small quantity regard them as unprofitable; but such is not always the case, as in a favourable autumn the plants give a good return and little trouble. The Raspberry, when grown for an autumn supply, needs an open position away from trees, as the fruits are produced in the shortening days, and by this it will be seen that as the fruits mature the plant needs every encouragement. As regards position, an open quarter where the soil is loamy and well drained is the best. The plants will grow freely in a light soil, even on gravel in such seasons as we are now experiencing, with rain almost daily, but in hot and dry years I have found that the plants in a good depth of soil give the best results, but by this I do not advise a clay soil, but that which grows good fruit, such as Strawberries. The cultivation differs from the summer fruiters, as the latter fruit on the wood of the previous year's growth, whereas the autumn plants fruit on the new wood made the same season. This, to give a full crop, should be sturdy and not too soft. To get wood in fruiting condition the soil must be deeply dug, or, what is better, trenched, well manured, and not have borne Raspberries for some time. Planting is best done in autumn, and ample space given the plants. The best autumn Strawberries I have ever seen were planted to screen a vegetable quarter, trained to iron supports and open to light and sun, much better results are always secured by giving a wide space between the plants. Have dwarf vegetable crops between. If rows are necessary, quite 6 feet should be allowed between, and half that distance between the plants, or even more if room is no object.

When planting it is well to make the plants firm. Mulch over the surface, and if the plants are at all long shorten a little and tie together. Pruning is best done in the early spring, according to the season, that is, just before growth is active, and the plants are not merely shortened like the summer fruiters but cut down to within 6 inches of the ground level, and the new shoots from the base are the fruiting wood for the season. It is also well to reduce the number of shoots at the base; they will not be very numerous the first year, but later, as the plants get older, they are very prolific. If at all crowded they do not give such good fruit.

The best method of training is doubtless that which allows each growth being spread out either upon strained wires or a trellis or hurdles. It is not well to tie to stakes in a bunch, as only the outer branches would be exposed. The plants are best the second year as regards crop, and will continue to yield for four or five years, but if possible make a new plantation every three years, as after the third season the fruits, though they are numerous, are much smaller. After the first crop is cleared there should be partial thinning of the canes if at all thick, but do not prune or cut down until autumn.

A good dressing of manure should be given as a mulch, and this forked into the ground in the spring. The best sucker growths at that time are selected, and all others destroyed at the pruning. It will be seen that any plant that occupies the soil so long needs ample food at the start and deep cultivation. Raspberries may be planted from October to March if done carefully, but I prefer October to December. It may not be generally known that what we call the summer fruiters will furnish autumn crops treated as advised, that is, cut down in spring. The large Superlative is one of the best treated thus, but the true autumn varieties are the most reliable, of which Belle de Fontenay, a red fruit, is one of the best. There is also a white variety which is very good, it is much sweeter than the red one named above, and is a great bearer; this is called the Four Seasons or Autumn Yellow Raspberry. There is also the October Red; this fruits with us into November in a fine season. There is a very dark fruit, and though not much grown in this country, it is a favourite on the Continent, viz., Noire d'Automne, and the fruits are well flavoured, though to do it justice it requires a warm soil.

Doubtless the two best for general use are the October Yellow and Belle de Fontenay. The partial failure of the crop this season was not solely due to the rains, but in May the new growths were badly injured and the plants had to make another start. The bad weather did not assist the growths made so late. It is a good plan to grow some of these fruits under a permanent 1 inch wire protector, and covered thus there is no trouble with birds. The wire netting should be sufficiently high to allow the fruit to be easily gathered. I found this season that plants grown thus were little injured by late frosts, those in the open being cut to the ground.

G. WYTHE.

SOCIETIES.

DULWICH AND NORTH PECKHAM CHRYSANTHEMUM SOCIETY.

LECTURE ON CHRYSANTHEMUMS.

UNDER the auspices of the Dulwich and North Peckham Chrysanthemum Societies, who amalgamated for the occasion, Mr. Molyneux delivered a lecture to a crowded audience at the Public Hall, Peckham. The lecturer dwelt at considerable length on the necessity of propagating early, not later than December; also the advantage of rooting the cuttings under cool treatment, and of securing good ones. The short thick cuttings from the base of the plants were the best, and in choice sorts, or those known to fail to give good cuttings at the right time, it was recommended that the side shoots taken off the flowering plants in June should be utilised. These, if rooted and grown on, would give cuttings when the older plants might fail. The lecturer further recommended that they should be rooted singly in small pots, that they should be potted on as soon as sufficiently rooted, and alluded to the necessity of keeping the young plants well exposed to the light, and giving plenty of air to avoid anything in the way of drawn growth. He also alluded to the necessity of giving early attention to thinning out superfluous growths and side shoots as early as possible as pointed out. In referring to the compost for potting, it was suggested that good loam and stable manure, with the addition of charcoal, crushed bones, and sand, according to the nature of the loam, would make a good compost, but the compost was not of so much importance as attention to feeding, or giving stimulants later on. Animal manures were recommended in preference to artificial compounds, though the latter might be used, the most important point being to use all manures with discretion, and not to think that because a little was good a lot must be much better. Soot was also alluded to as a valuable stimulant, but should be used in a clear state. To use anything on the surface of the soil which would form a coating and stop the permeating air passing, was a great disadvantage. The use of the syringe in dry, warm weather was strongly advocated, also the necessity of keeping all insect and fungoid pests at bay.

With regard to taking the buds the lecturer pointed out that it was a matter of personal experience in the various localities rather than any definite rules, and that grown should have sorts in duplicate and treat each differently, so as to have a double chance of getting good blooms at the right time. It was pointed out that while many of the older sorts could be depended upon to come from first bud or second bud, as the case might be, even with these under different conditions there was considerable variation, and with new varieties it was impossible to give definite instructions. "Use your own brains" was the lecturer's advice on this point.

Coming to finishing off the blooms, it was strongly recommended that the plants should be taken under glass early, and that in the case of bright sunshine shading should be given. The advantage of removing any florets not perfect, or where the centre is too close, this being done while the blooms are in the course of development, is of much

more importance than dressing the blooms after they were cut.

The importance of adding new varieties every season was touched upon; also the selection of blooms for exhibition. It was pointed out that deep blooms of moderate width should be selected in preference to shallow blooms of greater width. Many other interesting points were touched upon. The lecture was delivered in a pleasant and entertaining manner, and was much appreciated by the large audience. A most hearty vote of thanks was accorded to Mr. Molyneux.

TORQUAY CHRYSANTHEMUM SHOW.

LAST year it had to be regretfully recorded that the finances of the Torquay District Gardeners' Association did not admit of money prizes being given at the annual Chrysanthemum show, and it was pointed out that this was a blot on the fair fame of the beautiful town that its residents should, in their own interests, speedily efface. Whether or not our words were taken to heart we cannot say, but certainly the affairs of the association are now in a far more prosperous condition, and this year good prizes were offered in all classes. Happily the day of the show in the large hall of the Bath Saloons was bright and sunny, and from the throngs that inspected the attractive display of flowers the committee should have realised a handsome profit.

Cut blooms compared badly in numbers with the crowded array of stands in bygone years, but the unpropitious season has been, doubtless, chiefly responsible for that. In the premier class, for twenty-four Japanese, distinct, the first prize was won by Mr. J. N. Whitehead with a stand of fresh blooms, some of which needed another week to attain absolute perfection. In this stand, to which was awarded the National Chrysanthemum Society's certificate of merit, Godfrey's Masterpiece and Percy were especially good; second, Miss Congreve. For twelve Japanese, distinct, the first prize was won by Mr. W. J. Godfrey, his Lord Alverstone, Kimberley, Elsie Foulton, and General Hutton being very good; second, Dr. J. Quick. Six Japanese, yellow, one variety: First, Dr. J. Quick, with Kimberley; second, Mr. J. N. Whitehead, with Soleil d'Octobre. Six Japanese, any other colour: First, Dr. J. Quick, with Lady Hanham; second, Mr. J. N. Whitehead, with Vivand Morel. Twelve Japanese, incurved: First, Dr. J. Quick; second, Mr. J. N. Whitehead. Epergne of cut Chrysanthemums, arranged with autumn foliage: First, Mr. G. Emmet. Vase of cut Chrysanthemums: First, Mr. J. N. Whitehead, with an artistic arrangement of fine blooms; second, Mr. J. French; third, Mr. G. Emmet. Dinner table decoration: First, Mr. Minifie, with an arrangement of Niphetos Roses, Cattleyas, and Asparagus; second, Mr. G. Emmet, with Tropaeolum tuberosum, T. canariense, grasses, and sprays of Maidenhair Fern. This arrangement would have easily occupied the premier position if it had not been for the glided receptacles, which quite spoilt the effect; third, Mr. F. Perret, with Chrysanthemums pink and yellow.

Semi-circular groups of Chrysanthemums arranged against the wall were very good, first prize and the National Chrysanthemum Society's certificate of merit going to Mr. Dundee Hooper; second, Dr. W. Ford, Edgelow; third, Colonel T. Gardner; fourth, Lady Macgregor. Prizes were also given for a group of miscellaneous plants, trained Chrysanthemums, vases of cut Chrysanthemums, table plants, Ferns, Begonias, Solanums, and also for vegetables and fruit, the classes being well filled with good exhibits, while a handsome group of Palms, Crotons, and flowering plants was shown, not for competition, by Mrs. A. Bell.

Nurserymen's exhibits formed a feature in the show. The Devon Rosary, Torquay, staged a collection of Chrysanthemums, pot Carnations, winter-flowering Begonias, Ericas in variety, and Acacias, set off with Ferns and foliage plants, and their Fruit Farm contributed a fine display, the Apples, considering the unfavourable season, being particularly good. Fine examples were shown of Warner's King, Calville St. Sauveur, Queen, Cox's Orange Pippin, Betty Geeson, Peasgood's Nonsuch, Golden Noble, Smith's Pippin, Tyler's Kernel, Hambleton Deux Ans, Swedish Reinette, Lady Henniker, Beauty of Kent, Lane's Prince Albert, Wellington, Cox's Pomona, Northern Greening, Winter Peach, Emperor Alexander, Blenheim Orange, Lord Derby, and others. There were also some good Pears, as well as Figs, Mushrooms, Tomatoes, Cucumbers, Chillies, splendid Grapes, and punnets of Raspberries and Strawberries from the open. Violets were shown in abundance, as well as dozens of cut blooms of Iris stylosa and plants of the same Iris in flower in pots. Messrs. B. Velich and Son, Exeter, staged a quantity of cut Chrysanthemum blooms and an interesting collection of flowering plants, amongst which were Sarracenia Drummondii, Bouvardia, Nerines, Caryopteris Mastacanthus, Dimorphotheca Ecklonia, Kalanchoe flammea, Correa magnifica, Begonia Ideala, Browallia speciosa major, Daphne blagayana, Corydalis thalictrifolia, Linaria trinotroptera, Grevillea alpina, Loropetalum chinense, Acacia platyptera, Euellia macrantha, Fuchsia triphylla superba, Primula labellina, P. obconica plena, P. megasefolia, and P. cashmeriana. The firm also showed a number of variegated species of conifers. Mr. W. B. Smale, Torquay, had Chrysanthemums, Acalypha Sanderi, Plumbago capensis, Cannas, and other flowering plants. Mr. J. Heath, Kingskerswell, showed a collection of the best Violets, and Mr. W. H. Allward, Torquay, had Salvia splendens, Arums, Begonias, and a good assortment of flowering and foliage plants.

BRISTOL GARDENERS' ASSOCIATION.

"HARDY Fruit Culture, Past and Present," was the subject of a lecture given before the Bristol Gardeners' Association

on the 29th ult., the lecturer being Mr. J. Basham, jun., representing the Newport Gardeners' Society. A number of the Bristol gardening fraternity availed themselves of the opportunity to hear such an authority on hardy fruits. The subject is undoubtedly of the greatest interest to those connected with horticulture, and was handled by the lecturer in a masterly way. Many interesting points concerning the cultivation of our hardy fruits were ably thrashed out. It deserved, he said, much more attention than was usually given. Careful planting was most important, thinning the fruit (except during such seasons as this, when, unfortunately, there is none to thin), mulching, feeding, and pruning all demanding careful attention. He strongly advised all those intending to plant not to have too many varieties, and to select only those which suited the locality, giving shelter if necessary, and careful staking and tying must not be overlooked. A list of Apples, Pears, and Plums which were in cultivation 500 years ago was given, as also a selection of the best present day sorts. His lecture proved a great success. Mr. Basham, sen., occupied a seat on the platform, and was cordially welcomed by his fellow gardeners of Bristol. Prizes for six culinary Apples were awarded: First, Mr. J. B. Brain (gardener, Mr. Atwell); second, Lady Cane (gardener, Mr. Poole); third, Mr. G. A. Willis (gardener, Mr. Barwell); and an extra one to Mr. Gilbert Howes (gardener, Mr. White). A certificate of merit was also awarded to Mr. Gilbert Howes for three Odontoglossum grandis. Mr. Basham also staged a collection of a score or more dishes of Apples, which were much admired. The chairman for the evening was Mr. E. H. Poole.



ONE OF MESSRS. WARE'S DOUBLE BEGONIAS.

(See page 324.)

CROYDON CHRYSANTHEMUM SHOW.

THE sixteenth exhibition of the Croydon Chrysanthemum Society was held on Tuesday and Wednesday last in the Public Hall, Croydon. Although the display was not very extensive many excellent blooms were shown. The exhibition was opened by the Mayor-elect of Croydon, and there was a good attendance during the afternoon. The hard-working secretary is Mr. W. B. Beckett.

OPEN CLASSES.

Mr. G. J. Hunt, gardener to Pantia Rahli, Esq., Ashted Park, Epsom, won the first prize challenge cup for eighteen distinct varieties of Japanese and the same number of incurves. He showed remarkably fine blooms, the Japanese were large and shapely, Miss Stopford (the premier Japanese bloom in the show), F. S. Vallis, Mme. P. Radaelli, and Miss Olive Miller being particularly good; of the incurves, C. H. Curtis (the premier incurve in the show), Duchess of C. H. Pearl Palace, and others were very well shown. Mr. C. J. Salter, gardener to Mrs. Haywood, Reigate, was second; his Japanese blooms lacked depth, the incurves were good, notably C. H. Curtis and Lord Wolesey. Mr. Frank Bible, gardener to H.R.H. Prince Hatzfeldt, Draycot Park, Chippenham, was third. Mr. Hunt becomes the possessor of the challenge cup, having won it three years in succession.

Mr. W. Collins, gardener to Alderman R. V. Barrow, J.P., Engadine, Park Hill Road, Croydon, was the only exhibitor in the class for a group of decorative plants, and was awarded first prize.

Mr. G. Lawry, gardener to Mrs. Blake, Duppas Hill, was

first for six plants of Begonia Gloire de Lorraine. Mr. J. King, gardener to W. C. Gunn, Esq., The Red House, Bickley, was second, and Mr. W. Collins third.

For a group of Chrysanthemum plants Mr. W. Collins, gardener to Alderman Barrow, J.P., was first with a creditable display, the blooms of good size. Mr. E. Puxted, gardener to S. Taylor, Esq., Park Hill House, Croydon, was second with smaller blooms, and Mr. W. A. Cook, Shirley Park Gardens, Croydon, was third.

Eighteen Japanese blooms, not less than twelve varieties: First, Mr. G. Halsey, Ridding's Court Gardens, with a very good exhibit. Mrs. E. Cadbury, Australia, Mrs. Mease, and Mrs. G. Mileham were among the best. Mr. C. Lane, gardener to E. H. Coles, Esq., Caterham Valley, was a good second, and Mr. J. King, gardener to W. C. Gunn, Esq., The Red House, Bickley, was third.

Ten Japanese blooms in vases: Mr. C. Lane, gardener to E. H. Coles, Esq., Caterham Valley, was first, and showed some excellent blooms, notably Mrs. W. Mease and Mrs. W. R. Church. Mr. G. Halsey, gardener to J. Lyon, Esq., Ridding's Court, Caterham Valley, was second, with very good blooms of Mrs. Mease and Mrs. G. Mileham. Mr. Frank Bible, gardener to H.R.H. Prince Hatzfeldt, Draycot Park, Chippenham, was third. There were several more exhibitors.

Twelve incurved blooms: First, Mr. C. Lane, gardener to E. H. Coles, Esq., Caterham Valley, with Hanwell Glory, Queen of England, Miss Annie Hills, and C. H. Curtis as the best of a somewhat uneven lot; second, Mr. J. King, gardener to W. C. Gunn, Esq., The Red House, Bickley, Lady Isabel being his best bloom; Mr. G. Halsey, gardener to J. Lyon, Esq., J.P., Ridding's Court, Caterham Valley, was third.

Mr. C. Lane was first for nine foliage plants suitable for table decoration, Mr. J. King being second, and Mr. G. Lawry, Duppas Hill, third.

Six blooms of Japanese: First, Norman Wrightson, Esq., 55, Elgin Road, Croydon, with fairly good blooms; second, W. Philpot, Esq., 57, Church Street; third, Mr. G. Prebble, gardener to E. M. Preston, Esq., Shirley, Croydon.

Six blooms (incurved): First, Mr. W. Collins, with very good C. H. Curtis; second, Mr. G. Prebble, with fairly good blooms of Lady Isabel; third, Mr. A. Dyer, gardener to F. Peacock, Esq., Croydon.

Two bunches of black Grapes: First, Mr. W. Lintott, Marden Park Gardens, with very good Alicante; second, Mr. J. Friend, The Gardens, Rook's Nest, Godstone; third, Mr. William Taylor, Tewkesbury Lodge Gardens, Forest Hill.

Mr. W. Taylor was first for two bunches of white Grapes, and Mr. Lintott second, both showing Muscat of Alexandria.

The first prize for twelve dishes of Apples was won by Mr. W. Lintott, Marden Park Gardens, his exhibit included some well coloured dishes; second, Mr. W. Jones, Wallington Bridge, Carshalton; third, Mr. E. Phillips, The Brandries, Beddington.

Mr. W. Jones was first for four dishes of dessert Pears; and Mr. W. A. Cook, Shirley Park Gardens, second.

Four dishes of dessert Apples: First, Mr. O. Jeal, The Gardens, Waddon Lodge, Croydon; second, Mr. G. Lawry; third, Mr. J. Johnson.

Four dishes of kitchen Apples: First, Mr. W. A. Cook, with good Twenty Ounce; second, Mr. O. Jeal; third, Mr. C. Perrett.

SINGLE-HANDED GARDENERS.

Mr. C. Perrett, gardener to Mrs. Fuller, Duppas Hill, was first for a miscellaneous group of plants; Mr. A. Dyer, gardener to F. Peacock, Esq., was second; and Mr. J. Galvin, gardener to W. H. Butcher, Esq., Russell Dene, Purley, third.

Six blooms. Japanese: First, Mr. L. Gooch, gardener to T. Wickham-Jones, Esq., South Norwood, with some good flowers; second, Mr. J. W. Wheeler, gardener to J. D. Tannahill, Esq., South Norwood; third, Mr. A. Dyer, gardener to F. Peacock, Esq., Bramley Hill.

A second prize was given to Mr. A. Dyer for an exhibit of six incurved blooms.

Six bunches of Pompons: First, Mr. Dyer, with some good blooms; second, Mr. C. Perrett, gardener to Mrs. Fuller.

AMATEURS.

Norman Wrightson, Esq., Elgin Road, Croydon, was first for ten blooms of Japanese, arranged in vases, showing very well indeed. J. G. Mills, Esq., Croydon Road, Anerley, was second; and R. E. Mason, Esq., Vincent Road, Croydon, and Mr. F. Wells, 181, Albert Road, South Norwood, were equal thirds. There were other entries.

Six Japanese blooms: First, Mr. F. Wells, South Norwood, with a good exhibit. Mr. R. E. Mason, Vincent Road, Croydon, was second; and Mr. John Kaehler, Elgin Road, third.

Mr. R. E. Mason was first for six Japanese, not more than two of a sort.

Mr. J. Pittman, Dingwall Road, Croydon, won second prize for six incurved blooms.

Mr. G. Snelling, Jarvis Road, Croydon, won the first prize for a collection of vegetables in the class open to cottagers and allotment holders.

In a similar class for single-handed gardeners Mr. C. Perrett, gardener to Mrs. Fuller, Duppas Hill, was first.

MISCELLANEOUS.

Mr. Thomas Butcher, South Norwood, showed bouquets, floral arrangements, baskets of Chrysanthemums, &c., very tastefully.

Messrs. John Peed and Sons, West Norwood, exhibited a collection of hardy fruit and Chrysanthemum blooms.

Mr. Norman Davis, Framfield, Sussex, showed some splendid cut blooms in boxes, notably Mrs. W. Mease, Mme. Carnot, Beauty of Leigh (new, rich yellow Japanese), Miss Mildred Ware, F. W. Vallis, and others, making a striking display.

NATIONAL CHRYSANTHEMUM SOCIETY.

ON Monday evening last the executive committee of the above society held a meeting at Carr's Restaurant, Strand, when Mr. Thomas Bevan presided. After the reading of minutes and correspondence, the foreign secretary announced that arrangements were now completed for the visit of a deputation from the society to the exhibition and conference of the French National Chrysanthemum Society at Lille, on November 6. Particulars of the programme were given, and it was explained that part of the deputation would start in advance, visiting the Paris Chrysanthemum show, which would take place two days earlier. He also called attention to the recent publication, by the French society, of a book and coloured plate illustrative of the various diseases and insect pests that affect the Chrysanthemum. This has been issued under the auspices of the French National Chrysanthemum Society, and was considered extremely interesting. It was also announced that since the last meeting the supplemental catalogue had been published.

The secretary presented an interim financial statement, which was considered satisfactory. The ensuing show at the Crystal Palace necessitated the election of stewards, and various arrangements for the assembling of the floral, classification, and arbitration committees.

The annual dinner is definitely fixed for Wednesday, the 26th inst., at 6.15 p.m., at the Holborn Restaurant, Caledonian Saloon, when the president (Mr. C. E. Shea) has promised to take the chair.

The election of new members, among whom was Mr. Frederick H. Lemon, secretary of the Chrysanthemum Society of America, brought the evening's proceedings to a close.

SHERBORNE GARDENERS' SOCIETY.

THE annual meeting of the above society was held in the St. John's Hall recently, when Mr. John Dean presided over a good attendance of members. Prizes had been offered for plants and fruit, for which there was rather keen competition. The prizes were awarded to the following:—

Gardeners.—Group of plants: First, Mr. Witherington; second, Mr. Lane. Dish of fruit: First, Mr. Halliday; second, Mr. Witherington.

Amateurs.—Group of plants: First, Mr. Chubb; second, Mr. Cooper. Fruit: First, Mr. Lewis.

At the next meeting prizes will be given for three distinct Chrysanthemums and three specimen blooms.

After the meeting had been formally opened by the President, Mr. Cecil B. Brett gave the annual report and balance sheet. From the latter it was gathered that the society has a credit balance of just over £8.

BECKENHAM HORTICULTURAL SOCIETY.

"EXPERIMENTS with Manures on Bush and other Fruit" was the text of a lecture by Mr. F. W. Shrivell, given at the Church House on the 23rd ult., Mr. Rippengal in the chair. Mr. M. Webster, Kelsey Park Gardens, was awarded the society's award of merit for Allia Craig Onions, splendid examples of high culture. A similar award was given to Mr. Cole, Youlgreave Gardens, for very fine and well-flowered specimens of Begonia Gloire de Lorraine.

READING AND DISTRICT GARDENERS' ASSOCIATION.

THE last fortnightly meeting of the above association was held on the 26th ult., and was very largely attended, upwards of 100 members being present. The occasion was the visit of a representative from the Bristol Gardeners' Mutual. Mr. J. H. Vallance was the member selected, and he chose for his subject "The Renovation of Old Vines." His paper was full of interest and of original ideas in carrying out the work. Minute details were given as to the lifting of the trees, replanting, soil, manures, treatment of the young canes, &c. Some of the methods of procedure met with adverse but pleasant criticism, and a lively and animated discussion followed, in which Messrs. Barnes, Hinton, Wilson, Turnham, Neve, Exler, Pole-Routh, Prince, Fry, Alexander, Judd, House, and Stanton took part. A hearty vote of thanks was accorded to Mr. Vallance for his excellent paper, and for the most interesting evening he had afforded the members.

In replying, Mr. Vallance and Mr. Groves, the hon. secretary of the Bristol Society, both expressed the wish that the interchanging of lecturers between the two associations would last for many years. There were two or three fine honorary exhibits, fourteen dishes of Apples, the fruits large and of splendid colour: the most noticeable varieties were Warner's King, Lane's Prince Albert, Stirling Castle, New Hawthornden, Cox's Orange Pippin, King of the Pippins, and Fearn's Pippin. These were staged by Mr. E. Fry, The Gardens, Greensands, and he was congratulated on having such fine fruits in so bad a season. Three plants of well-grown Clendendron fallax were raised from seed sown in May by Mr. F. W. Exler, The Gardens, East Thorpe. For certificate, six dishes of splendid fruits of Warner's King Apple, entered by Mr. H. House, The Gardens, Oakfield (certificate awarded), and a very large plant of Impatiens Sultan, by Mr. E. S. Pigg, Fernbank, Kopley.

ROYAL HORTICULTURAL SOCIETY.

SCIENTIFIC COMMITTEE, OCTOBER 13.

PRESIDENT: Dr. M. T. Masters, F.R.S. (in the chair), Messrs. Saunders, Wordell, Massee, Gordon, and Holmes, Drs. Rendle and Cooke, Revs. W. Wilks and G. Henslow (hon. secretary).

Chrysanthemum leaves, spotted.—Mr. Saunders exhibited leaves apparently encrusted with some mineral. Mr. Holmes undertook to examine them.

Male Figs.—Dr. Masters observed that he had several instances of Figs sent to him that had failed to ripen. They were remarkable for containing entirely male flowers, ordinary Figs being entirely female, but ripening without

fertilisation, except in the case of the Smyrna Figs, which require "caprification."

Potato disease.—Dr. Cooke replied to enquiries as to the transmission of the mycelium from the leaves down the stem being the only means of reaching the tuber. His opinion was that the disease may be communicated direct to the tubers while young and with a delicate skin, or when bruised or wounded.

Clematis parasite.—He also reported on a new disease, which Mr. Chittenden named *Oularia clematidis*, and exhibited at the last meeting. Dr. Cooke supplied a technical description of the fungus, and adds: "No experiments have been made to check this parasite. If it should establish itself it would be well to try powdered sulphur at first, and if this be not successful to use Bordeaux mixture."

Vegetable monstrosities.—Mr. Wordell exhibited a spray of *Polargonium* with foliaceous bracts at the base of the umbel, and a fasciated peduncle; also flower-heads of *Scabiosa purpurea* with proliferous axils. Mr. Wilks observed that this is particularly common on German plants.

Lilac injured by insects.—Mr. Gordon showed branches attacked by some insect, on which Mr. Saunders has reported as follows: "The Lilac leaves were injured by the caterpillars of a small moth, one of the *Tineina*; but nearer than that I cannot say. The caterpillars had taken their departure from the leaves, and had no doubt buried themselves in the ground beneath the bush and become chrysalides within a couple of inches of the surface. I should recommend that a good dressing of kailit should be given, and that it should be chopped in with a hoe; this would probably kill a number of them. When the leaves are opening in the spring another dressing would be useful to prevent the moths making their way to the surface."

Potatoes diseased.—Mr. Gordon also exhibited Potatoes badly attacked by *Chrysophyctis endobiotica*. This fungus was introduced from the Continent, and first appeared in Cheshire. It has completely destroyed crops in allotments this year in Nottinghamshire.

Wound parasite of Apple trees.—Dr. Cooke also reported upon some examples brought by Mr. Chittenden. The fungus is *Hydnum Schiedermayeri*. It formed a strip of about 4 feet growing through the bark. This fungus is said to be very destructive to Apple trees, the spores entering through a wound in the bark.

Tomentum on Vine leaves.—Dr. Bonavia sent leaves to show how closely natural wooliness, or tomentum, resembled the red spider's web, and that it was impossible to distinguish them by the naked eye. Mr. Saunders observes: "I should not think it could be possible for anyone to distinguish between the tomentum on the leaves and the web spun by the red spiders with the naked eye unless the webs only covered parts of the leaves, in which case the under sides of the leaves would have a patchy appearance; but the similarity between the web and the tomentum is so great that otherwise no ordinary eye could detect the difference. Under the microscope the threads of the tomentum are twisted, and do not lie so straight as the threads of the webs."

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London.

A RARE GARDEN ROSE—CHARLES BONNET.

Mr. Bernard Thomasset, West Wickham, Kent, sends flowers of this fine old garden Rose. It is very sweet, and the colour a good red. The shoots sent were loaded with bloom. With the flowers came the following note: "A few blossoms of a Rose Charles Bonnet, which is, I think, seldom seen in this country. In my garden it is more floriferous than any other Rose—the first and the last in bloom. It possesses all the qualities of a good decorative climbing Rose, and is invaluable for cutting. The wood is entirely thornless."

A BEAUTIFUL YELLOW CARNATION SEEDLING—CERES.

Mr. Watts, Bronwylla, St. Asaph, sends again his seedling yellow Carnation as a reminder of its beauty late in the year. The flowers are large, without any tendency to coarseness, a clear yellow colour, and the petals are held well within the calyx. Mr. Watts sent several flowers, none of which were split, and also the following note: "Mrs. Martineau's letter in THE GARDEN of the 17th ult. will be read with interest by many lovers

of the border Carnation. A really good yellow variety that will stand wet weather is wanted badly. If Miss Audrey Campbell does as well in other soils and districts as it has done at Hurst in Berkshire it will be a valuable addition to this delightful race of flowers. Mrs. Martineau compares it to the white George Maquay, and says it beats that variety in her garden. Anyone who knows the latter will appreciate the value of a plant that can beat it in any way. I shall give Miss Audrey Campbell a good trial against my new yellow Ceres, of which I send you a few blooms. It has flowered profusely all through the season, and still has plenty of buds to open."

CARYOPTERIS MASTACANTHUS.

Mr. Ellwood sends from the interesting gardens of Swanmore Park, Bishop's Waltham, a bunch of this blue-flowered shrub with the following note: "Caryopteris Mastacanthus should be grown in every collection where hard-wooded plants are valued. It lends itself to wall, border, or pot culture, and, indeed, makes a very effective plant under any of these conditions. The flowers are of a delicate pale blue and freely produced. In spring the old flowering and all weak growth should be pruned back to good buds, thus forming compact bushes for the following season's flowering. The stock can be increased by cuttings of half-ripened wood."

ABELIA RUPESTRIS

also comes from Swanmore Park. "It is an ever-green shrub, and forms a capital plant for a wall or for roaming over a sheltered rock. It produces sprays of pink and white flowers on every growth. The plant mentioned is fully 5 feet high and a far through, and, despite the incessant rains, it is a perfect sheet of bloom. A bushy habit should be encouraged; the growth is pendent, and the shrub forms a beautiful object with its Myrtle-like growth at all seasons. Cuttings strike freely in summer."

AMARYLLIS BELLADONNA AND ANTHOLYZA PRÆLATA.

Mr. Ellwood kindly sends flowers of these with the following information: "Amaryllis Belladonna particularly should be grown wherever space is available at the foot of a south wall, flowering as it does so freely from September to November, with spikes of soft rose-coloured flowers. Many of the spikes carry from nine to twelve blooms. Every bud, too, expands after being cut, which is an advantage, as it is a gem for decorations. The culture is simple, a fairly rich soil well drained, and an annual top-dressing with short manure supply its wants. Plant 4 inches to 6 inches deep. Increased by young bulbs in autumn. Antholyza praelata, like the above, is a Cup bulb, and perfectly hardy here growing in the same position. It throws spikes freely, quite 3 feet high, of beautiful orange-coloured flowers throughout September and October. It resembles an enlarged Montbretia, and makes a good flowering succession to that plant. A light, sandy soil suits it admirably. Increased by offsets."

PHYTOLACCA DECANDRA.

Mr. Field sends from Ashwellthorpe Gardens spikes of Phytolacca decandra with the following note: "I am sending for your table sprays of the very interesting plant Phytolacca decandra. It is, perhaps, scarcely refined enough in leaf to justify its being recommended for use in the herbaceous border, but no plant is more worthy of a place wherever a rich herbaceous vegetation is desired, whether near the rougher approaches of a hardy fernery, open glades near woodland walks, or any similar position. Its greatest beauty is in the numerous bunches of black and red berries. These are very pretty at this time of the year. It grows freely in any rich soil, and in almost any aspect. It is easily raised from seed or by division of the roots. Now is the best time to plant. The Phytolacca is sometimes called the red ink plant, owing to the red colour of the young fruit."

FLOWERS FROM BEDFORD.

"B. M. B." sends from Bedford a welcome gathering of many flowers with the following note: "A few flowers typical of the four seasons. It is not often, I imagine, that one can pick on the same day of the year the following flowers: Spring.—Primroses, Violets, Polyanthus, Auriculas, Wallflowers, Anemones, Erysimum, Aubrietia, and Myosotis. Summer.—Roses, Honeysuckle, Sweet William, Heliotrope, Sweet Peas, and perennial Poppy. Autumn.—Chrysanthemums, Pinks, Michaelmas Daisies, and Dahlias. Winter.—Laurustinus. The latter is in full bloom. Of course there are many other flowers in the garden, but the above twenty are sufficiently representative to be interesting to other readers. May I mention that the Wallflower is Barr's Extra Early Parisian, and the plants are flowering profusely."

FICUS REPENS.

We received last week from Mr. Strugnell fruits of *Ficus repens* (see page 308). We illustrate the fruit sent, and refer our readers to the above-named page.

AUTUMN TINTS.

We have received what are to us always a great pleasure, shoots of some of the more brilliantly autumn-tinted trees and shrubs; they come from the Combe Wood Nursery of Messrs. J. Leitch and Sons, and comprise the following:—

The American Scarlet Oak (*Quercus americana coccinea splendens*).—This is superb for colour; every leaf is a warm old crimson. A noble tree at all times, but especially in autumn and into winter. Owners of large estates should think of this beautiful tree when planting; it is not so common.

Aspidodora virens.—Always a pleasure to see in early autumn for the sake of its rich colouring.

Pavia macrocarpa.—We value this shrub for its late flowering, but has an autumn tawny, too.

Azalea pontica.—A group of this in autumn has special charm, and this is due to the warm leaf colouring.

Viburnum Opulus sterile (Guelder Rose).—Colours markedly well at Combe Wood.

Acer platanoides Schwedleri.—One of the best of the Maples; has its beautiful leaves coloured with yellow and green at this season. We are glad to see that this fine Maple is being more planted in British gardens.

Hamamelis arborea (the Tree Witch-Hazel) is quite yellow in autumn, and when the leaves have dropped the rich orange-crimson sepalled flowers are in flower. A tree of this *Hamamelis* in bloom early in the year is a refreshing winter picture.

Acer rubrum (the Scarlet Maple), also called *A. spicatum*, is one of the brightest of all trees in its autumn colouring.

Acer tataricum Ginnala is a Maple we never tire recommending for its prettily shaped leaves and right scarlet colouring. It should never be omitted from the shortest list of "autumn tints."

Acer palmatum and the variety *sanguineum*

remind one of the splendid colouring of these Maples in autumn.

Liquidambar styraciflua (Sweet Gum) is already famous for autumn colouring.

We are very pleased to draw attention to these trees and shrubs for their autumn colouring, especially in such a disappointing autumn generally as this.

AURICULAS.

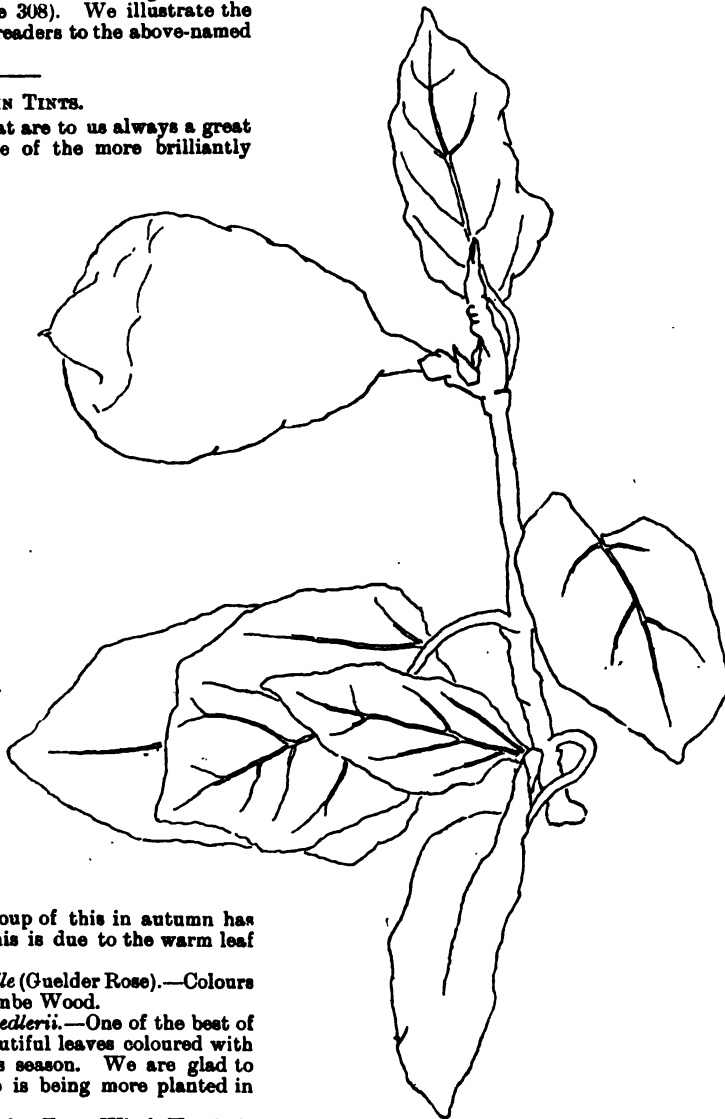
THE fine named show varieties, together with the leading alpine, are now commencing to lose some of their oldest leaves previous to falling away into the rest of winter. Not that the late summer growth is over, for that still goes on, and every lover of the Auricula rejoices to notice in the plants the presence of a stout, firm, Filbert-like centre, as in it lies the promise

plants, while enough water should be given to keep them in a healthy state of existence. Too much water should be avoided, as it may bring on the deadly rot, though if the soil be porous and the drainage perfect, and water can pass away freely from the roots, there is not much danger of harm from this cause. The finest varieties, even though the utmost care be bestowed upon the plants, will sometimes decay. Our most successful cultivators and exhibitors have their losses from this and other causes.

While the moist weather lasts it is well to keep the plants clear of decaying foliage. Occasional stirring of the surface-soil is of value in cases where it has settled down and shows signs of sourness. Clean pots and shelves are also helps to good health. The woolly aphid will gather about the stems of plants in the best cared-for collections. Excessive dryness at the roots also favours the clustering of the aphid upon the points of the roots next to the sides of the pots. It may be brushed away where it has clustered about the stem near the surface of the soil. I can scarcely say that the presence of the aphid has killed a plant, but it exercises a debilitating influence upon it if unchecked. Green fly is also troublesome at this season of the year, and it can be kept under by fumigation, or, if it is found only on a few plants, an artist's brush is useful to clear the leaves and centres of their presence, or they may be blown into space through a tube.

Two insidious insect enemies are sometimes at work among the Auriculas at this season of the year; one is a small white grub, the larva of which is concealed in the manure or leaf-soil at the time of potting, and which will eat its way through the main stem just beneath the surface of the soil. As soon, therefore, as a plant exhibits signs of failure it should be at once examined for the cause, and the intruder be summarily ejected. The other scourge is a small green caterpillar, which, commencing by devouring the leaves, will eat its way through the heart of the plant and downwards, destroying the possibility of a good truss of bloom in the spring. When this caterpillar has made its home in the base of the heart of the plant, it is only possible to dislodge it by means of a needle or pointed wire. Plenty of free ventilation should be given to the plants at this time of year.

This is also the time of the year to obtain a collection by anyone disposed to enter upon the fascinating culture of the Auricula. Should anyone feel diffident as to their capabilities to cultivate successfully, they should make a commencement with inferior sorts, a few of which may be obtained at a cheap rate. Those who wish to start with a collection worthy of their very best efforts in cultivation will find the following a selection difficult to improve upon:—Green edges: Shirley Hibberd, Mrs. Henwood, and the Rev. F. D. Horner. Grey edges: George Lightbody, George Rudd, and Richard Headly. White edges: Aome, Conservative, and Mrs. Dodwell. Selfs: Gerald (dark), Mrs. Potts (blue), Ruby (red), and Buttercup (yellow). Beautiful as Buttercup is, it does not rank high on the exhibition table, but I have added it for the sake of variety. Alpines: A set of six very fine gold centres will be found in Mrs. Martin Smith, Firefly, Dean Hole, Duke of York, Mrs. Gordon, and J. J. Keen. White centres: Thetis, Bessie Wheelwright, J. F. Kew, Winifred, Mrs. Harry Turner, and Pantaloon. R. DEAN.



FICUS REPENS IN FRUIT. (One-half natural size.)

of a good head of bloom six months hence. It is usual in the case of those who can give their plants a north aspect during the summer months to change them over to a south aspect during the winter months. The frequent rains and heavy storms of the summer have made it necessary to keep the lights on the frames much more than is usual in the case of a drier season, but an abundance of air has been allowed to circulate about and above the

NOTES FROM THE MARKETS.

USEFUL MARKET PLANTS.

ERICA GRACILIS NIVALIS.—This is a pure white variety of the well-known early-flowering *E. gracilis*, and should become a good market plant. A year or two ago Messrs. Gregory and Evans of Sidcup had a sport which was white, except for a slight shading of pink. *E. g. nivalis*, which comes from the same firm, is a further advance. It was submitted to the floral committee of the Royal

Horticultural Society and gained an award of merit. When *E. byemalis alba* was first seen it was thought that it would not prove constant, but as it is now grown for market it appears even whiter than when first introduced.—H.

Nephrolepis Westonii.—The *Nephrolepis* has been recognised as among the most useful Ferns for market, and any new sorts are welcome. The above will be sure to make a valuable market Fern. At first sight it closely resembles *N. davallioides furcans*, but it is of better substance. It occurred among a batch of seedlings of *N. Acuta (ensifolia)*. The fronds grow rather more erect, and all the pinnae are created or furcated, but rather shorter than in *N. furcans*. All the fronds are fertile, while in *N. furcans* spores are rarely produced. Seedlings have been raised which have come true. This came from Messrs. Cragg, Harrison, and Cragg, and gained an award of merit. *Nephrolepis Westonii*, another variety from the same parentage, is somewhat intermediate between *N. ensifolia* and *N. zollingeriana*. It has rather long, narrow pinnae, which are deeply lobed. This also produces spores freely, and may be regarded as a distinct and useful Fern.—A. H.

AN AFRICAN GARDEN IN ENGLAND.

AMONG the many beautiful private gardens in Oxfordshire, those at Headington Hill House are conspicuous, both for their extent and the many novel features which they present. The natural formation of the grounds and their size afford ample scope to the designing capabilities of Mr. Singleton, the head gardener, who has already successfully modelled a Japanese garden, which, as time and attention improve the size and individuality of the component shrubs and plants, will add considerably to the beauties of the garden.

The success attending the Japanese garden and the interest attached to a collection of plants representing the flora of a particular country, probably suggested the idea of devoting a portion of ground to plants from Africa. Though the above title is, perhaps, at the present time (September 9) slightly premature, the progress made is strongly indicative of the final result.

African plants, however, speaking broadly, present one great difference to those from Japan. The latter, in the majority, are hardy, but the number of known plants from Africa which will withstand both the damp and cold of England is very limited. Consequently it was decided, at any rate for the first year or two, not to keep the African garden strictly to plants indigenous to that country. Their collection must necessarily be a work of time, and in the meantime, that the ground might appear furnished, other plants, hardy and half hardy, are, and will be included, provided that their general appearance harmonises with those from Africa. Later, the name will be strictly representative of the garden, but though half hardy plants are admitted, glass accommodation being limited, the really hardy species are planted in larger and bolder masses. The portion of ground selected is in juxtaposition to the Japanese garden, faces south, and is backed by a crescent-shaped belt of shrubs, conifers, Spruce, purple Beech, Bays, Laurels, Cupressus, Mahonias, &c., forming a complete shelter from the north. Protection from easterly winds is gained by a few bold clumps of similar shrubs, which, though sufficiently near to shelter, are not so much so as to obstruct the view.

The plants at present are arranged in clumps, several smaller leading up to or surrounding one of much larger dimensions, with grassed walks in between. Though simple the arrangement is effective, and, further, will allow of extension in practically any direction, while such plants as require protection or removal during winter are easily reached. Few plants were actually in flower at the time these notes were taken, but when finished it is evident that during the greater

part of the year, in addition to flowers, a peculiar but striking vegetation will be obtained.

The most conspicuous plant in flower was a specimen of the American Agave, having an inflorescence some 12 feet high with thirteen umbrella-like clusters of its cream, yellow-green tinted flowers. The genus *Kniphofia*, both in species and garden forms, was well represented, and abundance of space having been given to each plant a brilliant effect should result when maturity is reached. A bed of *Galtonia candicans*, carrying numerous superb spikes, showed to advantage their white, bell-like flowers, while near was a small bed of *Tuberose*. The bulbs had been planted in April, but owing to the inclement summer had not grown to perfection. Masses of *Gladioli*, African *Marigolds*, *Montbretias*, *Freeseias*, &c., were interspersed between clumps of *Lobelia*; the blue and white *Agapanthus*, in fine specimens; different *Acacias*, *Campanulas*, *Plumbago capensis*, *Dracenas*, *Phoenix dactylifera* and *canariensis*, *Crinum Powellii* and *C. capense*, the latter bearing a few late spikes. Good use has been made of *Eucalyptus globulus*, *Ricinus zanzibarensis*, and a few Palms; and a few small beds arranged with *Opuntias*, *Gasterias*, *Crassulas*, and *Sedums*, added to the effect of the whole. Good use has been made of *Ixias*, *Watsonias*, *Sparaxis*, *Ornithogalums*, &c., but there yet remains a large number of bulbous plants, the different *Cycads* in which South Africa is so rich, *Asparagus*, &c., to be utilised, but the main difficulty will be to obtain a typical African flora without drawing too heavily on the green house accommodation. Still, it is evident that a beginning has been made in the right direction, and possibly in a more favourable season a greater variety of plants may be tested and compared.

ARGUTUS.

Chrysanthemum Crimson Source d'Or.—No plant belonging to the decorative group is better known than *Source d'Or*, and the variety under notice will be more fully appreciated when it is stated to be a sport from it. The colour may be described as a brilliant crimson, with a pale bronze reverse to the petals. There is, however, a slight suffusion of yellow at the base of the petals. This is the second season in which I have grown it. With the old-gold colour of the original, the rich golden-yellow of the sport named *Lizzie Adcock*, and the variety described in this note we have a trio of decorative Japanese sorts unequalled by any other. *Source d'Or* is not troublesome to grow.—D. B. C.

Decorative Chrysanthemum Martinmas and its bronze sport.—*Martinmas* was first introduced as a Pompon variety, and until last year was catalogued and distributed as such. The classification committee of the National Chrysanthemum Society, on the occasion of their meeting at the October show in 1902, decided to withdraw the parent variety and its sport from the Pompon section and transfer them to the decorative, which was formed about that time. It was demonstrated at that same show that these varieties when disbudded and well grown developed quite large blooms not unlike a reflexed type of the flower, and altogether unlike the small blooms peculiar to the Pompon Chrysanthemums, the characteristics of which are so clearly defined in the Jubilee edition of the society's catalogue. The flowers of the parent variety are light pink, tinted and edged white, and the sport is bronze. When left to develop their blooms naturally they make a dense cluster of flowers on short flower-stalks, and to be seen at their best they should be partially disbudded. It is a good plan to pinch back the plants several times during the growing season, by which means numerous branching growths are developed. They should then each be disbudded to one bud on each shoot, the result of this system of culture being very satisfactory. The plant attains a height of about 2½ feet, and is at its best during October. For border culture during the period just mentioned they are excellent, and the growth is robust.—D. B. C.

Salvia azurea grandiflora.—This *Salvia*, which Messrs. Veitch showed so well at the

meeting of the Royal Horticultural Society on the 27th ult., was introduced about a quarter of a century ago under the name of *Salvia Pichei*, and as such was soon extensively grown. It is a native of Arkansas and Texas, and though included in the "Kew Hand List of Herbaceous Plants" is best seen as a greenhouse plant; indeed, under the same conditions as the popular and showy *Salvia splendens* it is quite happy. *Salvia azurea grandiflora* differs from most of the others in growth, the shoots being long and slender, and clothed with narrow, greyish green leaves, while the flowers, which are freely borne, are of a charming shade of blue. Its rather loose growth fits it for grouping, while it furnishes quite a distinct colour to the Chrysanthemums which form the bulk of greenhouse flowering plants at this season. Given a fine autumn it will often flower out of doors before sharp frosts prevail, and on this point I may mention that two or three years ago some beds of it at Kew were very showy, the flowers being richer in tint than those under glass. Like the other members of the genus it is easily propagated and grown, and, as with most *Salvia*, it allowed to suffer from want of water or kept in too dry an atmosphere red spider attacks the leaves.—T.

Japanese Rhododendrons.—The numerous hybrids of this section are in many cases now flowering freely, but to be seen at their best they need a temperature somewhat above that of an ordinary greenhouse. Many attractive varieties of their own raising are now very beautiful in Messrs. Veitch's nursery at Chelsea, and, as befits a class of plants all raised within the smoke-laden area of London, they resist the adverse conditions too often experienced there much better than most subjects; indeed, they frequently pass unscathed, or nearly so, through fogs sufficiently dense to rob Indian Azaleas of their leaves, and cause nearly all the buds of the Himalayan section of hybrid Rhododendrons to drop. All the Japanese hybrids have smooth leaves, and on this point I find that, generally speaking, such plants resist fog and smoke much better than those with hairy foliage. The Japanese Rhododendrons are very free flowering, for plants in 5-inch pots will often bear several clusters of bloom, and in addition to this, their flowering period is not limited to any one part of the year, for where a collection is grown there is always a certain number of blossoms. If potted in good sandy peat and care is taken not to over-pot them, these Rhododendrons give but little trouble. Apart from growing in pots, the success attending their culture when planted out in the Mexican house at Kew shows them in a somewhat new light.—H. P.

Early-flowering Chrysanthemums.—At Gunnersbury Park Mr. George Reynolds plants out on a shaded north border batches of plants of the following varieties of early Chrysanthemums, and from them he obtains a very ample supply of cut bloom during September and October, the local harvest celebrations of all denominations being largely indebted to him for flowers on such occasions. The sorts are *Bouquet Feu*, reddish terra-cotta, a variety which produces charming sprays of bloom; *Coral Queen*, coral-rose or deep pink, the florets tipped with gold, a delightful tint of colour; *Harvest Home*, bronzy red, tipped with gold, which was seen to be brighter in colour under glass, and very free; *Horace Martin*, very free and fine, colour deep yellow, a sport from the crimson *Mme. Marie Masse*; *Jules Mary*, of a bright shade of crimson velvet, and is well described by Mr. Wells as "a beauty"; it is a great favourite with Mr. Reynolds, both in the open and under glass; and *Mme. Marie Masse*, an old favourite and an early bloomer, colour lilac-mauve. Many new additions are made to the group, but some of the older ones hold their own for the inestimable floral service they render, and they are likely to be grown for years to come.—R. DEAN.

Obituary.—We much regret to learn of the death of Mrs. Jackson, the wife of Mr. J. R. Jackson, of Claremont, Lympstone, Devon, and late curator of the Museums, Royal Gardens, Kew.

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sch. de Modena—Satin-rose, centre salmon and rose	2 0
sch. de Modena—Silver-pink, slightly edged crimson	2 0
sch. de Modena—Leonora Bramwell—Silver-rose; a grand flower	2 0
sch. de Modena—Pink, shading to blush; rose-scented	1 6
sch. de Modena—Rose, shading to pink; fragrant	2 0
sch. de Modena—Carmine, tinted salmon-rose; fragrant	2 0
sch. de Modena—Blush-white, slightly flaked crimson	2 0
sch. de Modena—Rich silver-pink	2 0
sch. de Modena—Soft satiny-rose and sulphur	2 6

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sch. de Modena—Rose-lilac, bordered white	1 6
sch. de Modena—Primrose-yellow, soft peach guard petals, rose-scented	1 0
sch. de Modena—Rich purple-lake; very large	1 6
sch. de Modena—Blush, striped carmine; fragrant	1 6
sch. de Modena—Pure white; very large	2 6
sch. de Modena—Bright rose; rose-scented	1 6
sch. de Modena—Rich velvety amaranth; large	1 6
sch. de Modena—Deep rose, edged silver; fragrant	1 6
sch. de Modena—Peach-blossom, soft yellow centre	1 6
sch. de Modena—Rose; strongly rose-scented	1 6
sch. de Modena—Rich silver-pink	2 0
sch. de Modena—Pink guard petals, blush centre	1 6

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National Chrysanthemum Society.—The annual dinner of this society will be held at the Holborn Restaurant on the 25th inst. The president of the society, Mr. C. E. Shea, will occupy the chair.

National Rose Society.—Tuesday next will be a busy day for this society. At two o'clock the General Purposes Committee meets, and at three o'clock there is a general committee meeting. All take place in the rooms of the Horticultural Club, Hotel Windsor.

Horticultural Club.—The usual monthly house dinner will take place on Tuesday next at 6 p.m. After dinner, Mr. G. S. Saunders, F.L.S., will read a paper on "Vegetable Curiosities."

Chrysanthemums in the Royal Botanic Gardens.—The Chrysanthemums grown in the Royal Botanic Society's Gardens, Regent's Park, are now in full flower. They are arranged in the conservatory, and make a display that is well worth visiting.

Royal Horticultural Society.—The following dates have been fixed by the society for 1904, but are liable to alteration on account of the possible uncertainty of the new hall opening and other contingencies: January 5, 26; February 9, 23; March 8, 22; April 5, 19 (National Auricula and Primula Society's show); May 3, 17 (Royal National Tulip Society's show); May 31 and June 1 and 2 (Temple show); June 14, 28; July 12 and 13 (Holland House show); July 26 (National Carnation and Picotee Society's show); August 9, 23; September 6 (National Dahlia Society's show); September 20 (National Rose Society's show); October 4, 5, and 6 (fruit show), 18; November 1, 15, 29; December 13.

Woodhatch Lodge, Reigate.—For many years past a number of horticulturists have been invited to spend a day in the Woodhatch Lodge Gardens, the residence of Mrs. Haywood, to see the Chrysanthemums, zonal Pelargoniums, and other plants that are exceptionally well grown there. Many pleasant days have been spent there at the invitation of the late Mr. T. B. Haywood, and the invitation since his death has been continued by Mrs. Haywood and Mr. C. B. Haywood. On the 4th inst. a most enjoyable day was passed by those horticulturists who visited Woodhatch. They were hospitably entertained by Mrs. Haywood and Mr. Haywood, and found much to admire in the plants and flowers Mr. Salter so well knows how to grow.

A new race of Dahlias.—A Dutch horticulturist, M. H. Hornsvelt of Baarn, by crossing the Cactus with the single Dahlias has obtained some interesting results, and the flowers are sufficiently distinct it appears to form a new race. The flowers have long stems, are single and semi-double, and much larger than the ordinary single Dahlias. Among the varieties shown before the Dutch Horticultural and Botanical Society at Amsterdam, the following were thought the most highly of: Baron de Grancy, pure white; Roem van Baarn (Gloire de Baarn), violet; Koningin Wilhelmina, white; and Prins Hendrik, red.

Polygonum molle.—This is a useful plant for cut bloom. I have seen it used effectively for table decorations. It produces loose branching panicles of small white flowers on reddish brown stems, is rather brittle, but otherwise stands well in water. It may be used in a similar manner to the Gypsophila, and as it comes in after this is over it should be well worthy of attention. Mr. A. Perry exhibited some large bunches of it at a recent meeting of the Royal Horticultural Society, and I have seen it used on several occasions in cut flower arrangements. It belongs to the hardy herbaceous section of these useful plants.—A. H.

Midland Reafforesting Association.—This association has been formed to promote the reafforesting of waste grounds in the Midlands, particularly in the parts of Staffordshire and Worcestershire known as the Black Country. It is the result of a public meeting held in Birmingham on February 12 last, and greeted with marked approval by the Press throughout the country. Once the Black Country was forest, and the association does not claim to be the first to attempt its replanting. It seeks rather to make

the knowledge gained from previous attempts, their successes and their failures, the basis of a great public movement, which shall restore to the district some of its ancient beauty, and render back its waste places to the service of men. Independently of the help so freely given by the Press, the association proposes to spread its views by means of pamphlets and lectures. It is prepared, moreover, to give expert advice on planting, to point out the trees most suitable for any locality, to assist and inform all who may contemplate planting on their own account, and further, if opportunity offers, to establish model or demonstration plantations. Fully to attain these ends many members and many helpers will be needed, and in the first place all public-spirited persons are invited to co-operate with the association in forming local committees and in making arrangements for a series of lantern lectures, to be delivered in the Black Country towns during the coming winter season. Sir Oliver Lodge is president; Professor Hillhouse is chairman of council; Mr. P. E. Martineau, Bentley Heath, Knowle, is hon. secretary to the council; and Mr. Herbert Stone, Bracebridge Street, Birmingham, is general hon. secretary.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Names of plants.—Mrs. E. L. E.—*Gilia laciniata*.—M. M.—The flowers sent are those of *Tasmania mollissima*.—Castlebar, Reigate.—Not a *Colchicum*, but *Crocus speciosus*.—R. Lake.—*Hedysarum coronarium*.—A. M. Rolfe.—*Astrantia major*.

Fungus (A. W.).—The floor boards of your room are evidently attacked by the dry-rot fungus (*Merulius lacrymans*). This fungus seldom infests wood that is in a well-ventilated position. Probably the air stagnates under the floor being in the basement. Can you not adopt some means to remedy this? The ends of the joists or boards which come into contact with the wall should, if the latter be at all damp, be creosoted, and the rest of the woodwork either creosoted or painted with a strong solution of sulphate of copper (blue-stone), say, 2lb. to 15 gallons of water, if the water will dissolve that quantity. Do not use a metal vessel to make the mixture in.—G. S. S.

Potting Roses (G. EMER).—The best results in forcing Roses are always got from established plants, but, where there is no very hard forcing adopted, plants from the open ground potted up now could be had in bloom earlier than those growing outdoors. Market growers adopt the plan of bottom-heat for newly potted up Roses. If you prepare a bed of leaves and tan or stable manure in your cold greenhouse, and plunge the new potted plants into some cocoanut fibre placed upon the hot bed after the fierce heat has subsided, you will find they quickly make new roots, and are then able to answer to the call which the top growths make upon the roots. Maiden plants are the best for potting up. Select bushy, well-ripened specimens, cut off all the foliage, and shorten growths by one-half. Slightly trim the roots, then pot up into 7-inch and 8-inch pots. A good compost is two parts fibrous loam, one part well-decayed animal manure, with a 5-inch potful of bone-meal to each two bushels of compost. No liquid manure is wanted until growth is well advanced; in fact, it is best to wait until flower-buds are seen, even on established plants. Firm potting must be practised. It is best to allow a day to intervene before watering newly-potted Roses. Should there be a good rain they will not need any other water; otherwise give them a moderate supply with a Rose can. Plunge them in the open in partial shade for a few weeks. For this purpose ashes or cocoanut fibre is preferred. No further watering will then be necessary. Keep them outside until frost threatens, then bring the plants under cover. Prune them back to four or five eyes in January or February, then plunge in the gentle hot bed as advised. At this time of the year air should be given very cautiously, and this on top ventilators only. It is well to subject the plants to a regular system of ventilating, not fluctuations between abundance and none at all. The temperature of the cold house will be about 45° to 50° on sunny days, and this is quite sufficient for the Roses at commencement. When new growth is advanced a few inches it would be advisable to introduce the plants into your warm greenhouse, where a temperature of 50° to 55° can be given. If you have a pit or frame inside this house where you can make a gentle hot-bed, or if you can contrive a frame over the hot-water

pipes, you will find the Roses succeed much better by this little bottom-heat, even after you have removed them to the warmer house. The plants need not be reported every year, but much depends upon their condition. If the pots are full of roots repotting would be the best course to take; this should be done at midsummer. Top-dressing is performed by removing with a pointed stick about 1 inch or so of the old top soil and replacing this with some good compost such as already mentioned. Pot Roses are considerably helped if, when they have made 5 inches or 6 inches of growth, the soil is covered to a depth of 1 inch with well-rotted manure, and if they appear to want some extra stimulant a sprinkling of bone-meal before applying the manure. You may remember it is the strong, healthy plants that really need extra feeding. It is baneful to apply manures, liquid or otherwise, to weakly plants. What such require is some nice sweet compost consisting principally of good turf loam.

Grouping Roses in long border (DEINA).—The narrowness of the border prevents your making a really good arrangement. As the border is 12 feet wide and 126 feet long we should advise you to have circular and parallel beds alternately down the centre of the border. By parallel beds I mean circular beds 5 feet in diameter this would allow of a grass walk 2 feet wide between the beds. The parallel beds should be 10 feet long, having half circular ends. By so doing a narrow border 18 inches wide could be formed the whole length of the piece of ground. Grass walks between the beds give a most refreshing appearance to the garden. This border, if laid out as advised above, would contain seven circular and six parallel beds. As to how these should be planted is a matter of individual taste. It is now fashionable to plant beds of one kind, but this would give you but a very small variety, and we note that you would prefer Roses of all kinds. The circular beds would look well filled with short standards, or perhaps a few of such plants in the centre and surrounded by bushes. These should mainly consist of the freest blooming Hybrid Perpetuals, whose blossoms, generally so fragrant and of such brilliant colours, would give that quality of flower which so many of the modern artistic-coloured Roses lack. Then the parallel beds could be filled with Tea-scented and Hybrid Teas of the most popular kinds, endeavouring as far as possible to plant Roses of the same shade of colour in the one bed, and also to plant the strongest growers down the centre of these parallel beds. The narrow border skirting this long piece of land would look well planted with the delightful little Polyantha Roses or the beautiful Moulins such as Mme. E. Rosal, Aurora, Queen Mab, &c. Another plan would be to plant this narrow border with Roses such as W. A. Richardson, Billiard et Barre, &c., and train them horizontally to low lattice work or wires. By so doing you ensure an abundant blossoming of a very lovely type Rose. Pillar Roses planted at intervals of 8 feet along the narrow border would also have a nice effect, especially if each pair were induced to form arches running parallel with the border. There would be ample space to introduce beds of other tribes of this Rose, such as Rugosas, Austrian Briars, Mosses, Bourbons, &c., if you have a desire to do so. As the border slopes to the west we think you should plant the Tea-scented kinds at the highest point. We should be pleased to advise as to varieties of the various tribes if you state what you decide to plant.

GARDENING APPOINTMENTS.

MR. P. COLOMAN, late foreman at Derry Ormeau, has been appointed head gardener to Sir Piers Moyn, Bart., Talson, Prestatyn, Flintshire.

MR. J. UDALL, for the last ten years fruit foreman to S. Heilbut, Esq., The Lodge, Holyport, near Maidenhead, has been appointed head gardener to M. C. Pilkington, Esq., Hutton Hall, near Brentwood, Essex.

TRADE NOTES.

MESSES. WILLIAM BULL AND SONS, new plant, seed, and bulb merchants, of King's Road, Chelsea, have appointed Mr. George H. Sage, late head gardener to the Most Hon. Marquess Camden at Bayham Abbey, Lamberhurst, as one of their representatives.

MR. J. AMBROSE.

WE are sorry to hear that Mr. Ambrose, of Chessington, met with an accident recently, and has badly injured his arm and shoulder. He hopes, however, to be able shortly to attend to his correspondence. Mr. Ambrose was awarded a silver Banksian medal at the Royal Horticultural Society's meeting on the 27th ult.

CATALOGUES RECEIVED.

Carnations, Picotees, &c.—Messrs. Blackmore and Langdon, Twerton Hill Nursery, Bath.

Autumn Catalogue.—MM. Lemoine et fils, Nancy.

Trees and Shrubs.—MM. Desfontaines-Thullier fils et Co, 23, Route d'Orléans, Orléans.

Seeds.—Sluis and Groot, Enkhuisen, Holland.

Roses, Fruits, Trees, and Shrubs.—Messrs. William Watson and Sons, Clontarf Nurseries, Dublin; Messrs. W. Smith and Sons, Aberdeen; Messrs. James Cocker and Sons, Aberdeen.

Chrysanthemums.—Messrs. W. Wells and Co., Redhill, Surrey; Messrs. John Peed and Sons, West Norwood, S.E.

American Seeds.—Messrs. J. M. Thorburn and Co., 35 Cortlandt Street, New York, U.S.A.

Alpine Plants.—Jardins Correvon, Chêne-Bourg, Geneva.

General Plant List.—Damman and Co., San Giovanni a Teduccio, Naples.

Autumn and Winter Catalogue.—MM. Brant, Pottiers.

*. The Yearly Subscription to THE GARDEN is: *Ireland*, 15s.; *Foreign*, 17s. 6d.

THE GARDEN

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[NOVEMBER 14, 1903.]

OVERGROWN FLOWERS, FRUITS, AND VEGETABLES.

ON Tuesday afternoon a lecture was given before the Royal Horticultural Society on the above subject, and it may be interesting to know the conclusions arrived at. They are comprised in the following summary: Quality always rather than size.

If the judges of vegetables would adopt a common-sense standard and make their awards in favour of the vegetables they would pick out for consumption at their own tables, it is doubtful whether the large ones in the show would be those most honoured. They would, for instance, in the case of a Cauliflower, choose one that was fairly compact, not one of huge size that had the appearance of being pugged with manure and bloated with liquid.

The standards of the best class of country house, where the mistress is a good housewife, should be borne in mind; where the diameter of a Brussels Sprout must not exceed five-eighths of an inch, and no large over-grown vegetables are allowed to come to table.

Of course such a standard could not be adopted as a general one, for the larger number of consumers require more bulk; but it is doubtful whether anyone really wants the very large overfed examples. They merely indicate a certain skill in pushing the thing as far as it will go, the article, when produced, being relatively valueless.

THE OVER-DOUBLING OF FLOWERS

was also pointed out as an evil, and is a matter that is often fatal to beauty. Many a flower is the better for a judicious degree of doubling, but when it is carried too far it turns what should be a handsome flower into a mis-shapen absurdity. This has been done in the case of Zinnias. In this fine thing moderate doubling is a gain on a well-grown plant a couple of feet high. But there is a monstrous form where many rows of petals show one above the other. In this the flower is robbed of all its natural beauty, and becomes an absurd cone of quite indefensible ugliness, and it is all the more deplorable an object when this monstrous flower is grown on a dwarfed plant. The orthodox Hollyhock is also much too tightly doubled, so that it becomes a tight wrinkled hemisphere. The beautiful Hollyhock has a distinct wide outer petticoat, and the inner

portion is not so tightly packed but that its component petals, though closely grouped and loosely crumpled, admit of the free play of light and colour.

The undesirable influence of the rage for novelty, rather than a calm judgment of what is most beautiful, is also seen in the matter of colour. Some flowers have naturally only a tender tinting, which seems to be so much a part of their true nature that attempts to force them into stronger colouring can only detract from their refinement. Such a plant is the delicious Mignonette, with a tender colouring that seems like a modest self-deprecating introduction to its delicious and wholesome quality of sweetness. The slightly warmer shade of the anthers in the plant of normal tinting, with a general absence of any positively bright colouring, is exactly in accordance with the plant's true character, and with that modest charm that gives it a warm place in every good gardener's heart. But when, as in some of the recent so-called improvements, the graceful head is enlarged and condensed into a broad, thickened squatness, with large brick-red anthers, that modest grace that formed the essence of the sweet flower's charm is entirely gone, and in its place we are offered a thing that has lost all beauty and has only gained a look of coarseness. These broad, thick blooms have also a suspicion of rank quality about their scent that was never apparent in the older forms.

The lecturer also strongly condemned the practice of dwarfing plants for the mere sake of creating something novel, but paid a warm tribute to the labours of seed growers at home and abroad for the many grand plants that are due to their many labours and to the hybridist.

The lecturer had received many opinions from raisers and growers of flowers, fruits, and vegetables. The following is a letter received from that excellent old gardener, the Rector of Kirby-Lonsdale (the Rev. Francis Horner, M.A., V.M.H.); it is a refreshing criticism of the subject under consideration; it was received too late to be read at the meeting on Tuesday.

"In flowers, fruits, and vegetables I think that size as against quality is a poor advantage. It is easier to produce what is too big than what is too good. The former may be overdone; the latter never over-reached. I would rather have two half-crowns than one ponderous five-shilling piece. The two are worth as much, and are the handier.

"The proverbial big Gooseberry is an accepted symbol of bulk as against flavour,

though not a trustworthy illustration, because this fruit is never of unmanageable size, and some of the show varieties are by no means short of flavour. But the big Potato, somewhat hollow inside, the big Onion that splits, the cumbersome Cabbage, the gigantic Pumpkin—the things that carry coarseness the more they carry size—these are truer examples that size is not the great desideratum in fruit and vegetables. As the boy said when he had mastered the alphabet, 'Whether it was worth while to go through so much to gain so little he didn't know!'

"In the wide world of flowers the subject is naturally so expansive that it is hard to condense it. In floriculture there are so many different aims and objects, and of course size comes in, and colour, and form, and other attributes. In Nature's types, many flowers are small, but with powers of variability in size, substance, and form, and it is no outrage to lead them on.

"When, however, we come to doubleness in flowers, I think we do not always improve upon Nature, however much we may gain in size. Double Snowdrops, double Daffodils, double Tulips, and double Campanulas are (e.g.) not so winsome as the beauty of simplicity in their single forms. In other instances, however, a double form has the advantage of a longer duration. For instance, the single Dahlia lasts no longer than the brief life of its one row of petals, and so, too, the single Rose. In plants which, like the Begonia, bear monœcious flowers it is only the male blossoms that can be double; the female form is strictly single, and it is very interesting to see both in their highest distinction upon the same plant.

"Though I have loved plants all my life, and grown a great many kinds in half a century of it (without any head gardenership but my own), I am, perhaps, not the fairest judge of the real value of mere size in flowers as against other rarer and more difficult gifts and properties in them. For I began, and largely continue, in the love and nurture of our old classical 'Florist Flowers,' such as the Auricula, Tulip, Ranunculus, Pink, Carnation, and Picotee. The Auricula and Tulip are not likely to be lowered in their higher qualities, the Ranunculus and Pink, I fear, are largely lost from the standard they once were at, while in the Carnation and Picotee I am afraid that size and confusion, through too much doubleness, have wrought great havoc.

"My opinion—for the little it is worth—is that size is often oversought, overwrought, and overworshipped to the oversight of properties more difficult, more worthy to attain, and more satisfying.—FRANCIS D. HORNER, M.A., V.M.H."

THE VEGETABLE AND FRUIT GARDENS OF THE FUTURE.

The well-known grower of vegetables, Mr. Beckett, alluded to the importance of the fruit

and vegetable in the economy of the household. We thoroughly agree with his remarks.

"Though vegetable culture is generally regarded as the lowest grade in horticulture, it is certainly not the least important, and, unless I am greatly mistaken, the production of high-class kitchen garden produce will take a much more prominent part in the future than it has hitherto done, and this can only be accomplished by educating both the producer generally to a higher standard than has so far been the case. Our young men who have made up their minds to become gardeners far too often consider that the details in connexion with vegetable culture are beneath their notice, and can be acquired, if required, when they are placed in responsible positions as head gardeners, a sad mistake which they often find out to their cost. I am perfectly convinced that there is no department in horticulture which demands more care, skill, and thought than this if high-class vegetables are to be produced all through the year.

"Many vegetables which are offered for sale are really not fit for human food, and as with fruit, so with vegetables—many of the products tempting to the eye are scarcely worth cooking. The selection of varieties is of the utmost importance, whether for private or market use, and in making awards at our exhibitions judges do not take into consideration the quality of the varieties nearly as much as they ought. Large and coarse sorts should be rigorously excluded from all lists, as they are neither good nor profitable. Especially does this apply to Potatoes, Cabbage, Savoy, Beet-root, Turnips, and many others.

"I am quite at a loss to understand why our market gardeners do not cultivate the better varieties, many of which are much more prolific and as easily grown. For illustration Peas and Runner Beans. It is almost impossible to get the first-named fit to eat at any of our hotels or restaurants during the season, and why not grow the new and improved sorts, which are certainly vastly superior in every way. The highest system of culture should be the aim of the producer, whether it be flowers, fruit, or vegetables of all the best known kinds, so that each specimen may be of the highest excellence."

Letters were also read from Mr. F. W. Burbidge, M.A., V.M.H., Mr. C. E. Shea, Mr. E. H. Woodall, Mr. C. E. Pearson, the Rev. G. Engleheart, Mr. George Bunyard, Mr. Rivers, Mr. S. W. Fitzherbert, Mr. E. Molyneux, Mr. Owen Thomas, Mr. George Wythes, and others. Their conclusions were practically the same as those of the lecturer.

THE EDITOR'S TABLE.

We invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London.

NERINES FROM IRELAND.

The garden of Mr. W. E. Gumbleton, at Belgrove, Queenstown, Ireland, is well known to contain a large number of rare and beautiful plants whose culture is neglected. We have on several occasions received interesting flowers from

Mr. Gumbleton, but few more so than the Nerines brought for our inspection last week. The following were among them: *Nerine Meadowbankii* × *atro-rubens*, a hybrid raised by Mr. F. W. Moore in the Glasnevin Botanic Gardens; it is a striking flower, rich scarlet in colour; *N. amabilis* × *grandiflora* is a fine rich pink form of *N. amabilis*; *N. ingens* has the largest flowers of all, they are carmine coloured (Herr Max Leichtlin introduced this Nerine to cultivation); *N. sarniensis* × *Moorei* is another Glasnevin hybrid remarkable for the distinct blue tinge that suffuses the pink petals; *N. sarniensis rosea* has deep rose-pink flowers, while a *sarniensis* seedling (unnamed) raised by Mr. Elwes has dark stripes down the centres of the pink petals. Of *N. Novely* there are two forms, the best of which is very fine; the individual flowers are very large. *N. atro-rubens* is one of the richest coloured of all, a dazzling scarlet; *N. coruscans* has flowers of brightest red, while *N. c. pallida* is a very attractive pale coloured variety; the paleness is not dull, however, but quite a sparkling tint. *N. excellens* has crimped, narrow-petalled pink flowers, the petals being lined with red, and the heads of bloom very large; *N. Plantii* is a glowing scarlet colour, and very beautiful; *N. Lady Guise*, one of Mr. Elwes' hybrids, produces flowers that are almost salmon coloured; while *N. Lady Clementine Mitford* is a lovely flower of a delicate and beautiful pink, the petals crimped; *N. Miss Woolward* bears pale blush blooms with dark lines down the centres of the petals; *N. Carrei* is the first to bloom of all, while *N. Mansellii*, which is the latest, was, Mr. Gumbleton informed us, showing flower when he left Belgrove. Rarely have we seen a gathering of flowers at this time of year that contained such brilliant and distinct colours; plants that flower at this time of year are always welcome, and when they produce flowers of such delicate beauty and rich colouring as these Nerines they are invaluable in a garden where glass house protection is available.

SOLANUM JASMINOIDES.

The Rev. P. Clementi-Smith writes from St. Andrew's Rectory, Doctor's Commons, E.C.: "I was greatly interested in seeing the *Solanum jasminoides* growing and flowering freely out of doors against the west side of a house at Dorman's Land, Lingfield, Surrey. It is generally supposed to be a hot house perennial climber, though I think some reference was made in THE GARDEN a year or so ago to its thriving out of doors near London, at Hendon, and since then I hear it may be seen at Chiswick. But until this week I have never seen it growing out of doors in England. In the South of Spain, at Ferey de la Frontera, where I spent six months a few years ago, I frequently saw it festooning trees or covering rustic arches in the gardens. The clusters of white flowers are lovely, and are called by the Spaniards 'The Virgin's Tears.'

A beautiful climber, which is a success in many gardens. It festoons houses sometimes in the South of England and in Ireland.

THE BEAUTY OF BEECH TINTS.

Miss A. Smallpeice, Crosslane, Guildford, writes: "Two correspondents lately have mentioned the lack of autumn tints this year. Here at Guildford they are very fine, particularly the Beech trees, which are all shades, from bronze and burnished copper to golden. I enclose a few leaves from one of our trees. The Sycamores are bright yellow, and the tints on the woods around are beautiful."

ROSA LUCIDA AND ASTER SALICIFOLIA TRESSERVE.

Mr. Smith, Daisy Hill Nursery, Newry, writes: "The statement in THE GARDEN that autumn tints in England are either absent altogether or poor surprises me. Here generally they are superb, in fact some of the prettiest gardens I know are just now glowing pictures of autumn colour, as I think the specimens sent will show."

R. lucida, with its crimson leaves and hews, is always beautiful at this time, and the *Aster* is quite

a treasure; the flowers are a fresh pink colour, and make quite a show when the plants are put fairly closely together; they are 1 foot high.

RECENT PLANT PORTRAITS.

THE *Botanical Magazine* for November contains portraits of

Clerodendron cephalanthum.—Native of Zanzibar Island, also known as *C. capitatum* var. *cephalanthum*. This is a handsome climbing shrub, with large, open bunches of pure white flowers with long, protruding purple anthers; it is a vigorous grower, and flowers freely in the Palm house.

Impatiens falcifer.—Native of the Sikkim Himalaya, also known under the synonym of *I. serrata*. This is an exceedingly pretty Balsaminaceae with golden yellow flowers, the upper half of which is minutely spotted with red.

Fendlera rupicola.—Native of South-Western North America. This is an exceedingly ornamental and, when happy, free-flowering shrub whose flowers are pure white, sometimes in its native country shaded with rose. The conspicuous yellow stamens add to the beauty of the flower. It was introduced into European gardens in 1865 by Herr Max Leichtlin of Baden-Baden.

Spharocodon obtusifolium.—A native of tropical Africa, also known under the synonyms of *Natalense* and *S. cafrum*.

Tylophora Caffra and *Gongronema Welurtschii*. This is a curious trailing shrub, with axillary bunches of reddish purple tubular flowers of great beauty.

Iris gracilipes.—Native of Japan, also known as *I. sibirica*. This is a delicate and pretty slender growing, fibrous-rooted *Iris*, with small lilac-purple flowers with white centres to the falls. This plant was sent to Kew in September, 1902, by Herr Max Leichtlin of Baden-Baden.

W. E. GUMBLETON.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 18.—Hull (two days), York (three days) and Bristol (two days) Chrysanthemum Show.

November 19.—Scottish Horticultural Association's Chrysanthemum Show.

United Horticultural Benefit and Provident Society.—The monthly committee meeting of this society was held at the Caledonian Hotel, Adelphi Terrace, Strand, on Monday evening last, Mr. C. H. Curtis in the chair. Three new members were elected, making a total of eighty this year to date. Seven members were reported on the sick fund. The amount of sick pay for the month was £21 12s.

Polygala Chamæbuxus purpurea. Since its introduction in 1658 *Polygala Chamæbuxus*, commonly called the Bastard Box, has been growing in favour with lovers of alpine, and is now regarded as one of the most desirable of dwarf rock shrubs. During recent years, however, it seems to have become rather scarce, and the purple form *P. C. purpurea* is apparently the commoner of the two. Both flower profusely from early spring till late autumn, and in a mild winter they never seem to be without a few blossoms. The former has white flowers with a cream-coloured centre, and the latter, as the name implies, purple with a yellow centre, which greatly enhances its beauty. I recently saw the variety *purpurea* growing luxuriantly in Mr. Pulham's nursery at Epsom. Mr. Pulham told me that it had been a mass of colour since the spring, and any quantity of flowers were still appearing. Almost any position on the rock garden will suit these plants, providing it is well drained and slightly shaded from the hottest rays of the sun. A suitable compost for growing them in is a mixture of sandy peat and leaf-soil. These *Polygalas* have a neat, compact habit, and seldom grow more than 6 inches in height; they are evergreen, and in every way two of the most beautiful dwarf shrubs for the rock garden.—A. E. THATCHER.

Birds in a city rectory garden.—*rogodytes Parvulus*, *Europæus*, or *Vulgaris* visited our rectory garden and made itself very much at home for the whole of the day of Monday, October 26. But, alas! it had taken its flight before we got up early next morning, in obedience to its migratory instincts, though it is difficult to realise so tiny a bird taking a long solitary journey. Most of our city readers have seen and heard the hen with its loud notes, so bright and cheerful and from its tiny size, brown dress, and short tail asked on high, more often heard than seen), flitting restlessly in the bushes and undergrowth along the country lanes. Some, perhaps, like the rector in his youth, have found its domed nest of dead leaves, apparently so needlessly large for the size of the bird. Writing from personal observation, it seems to be custom of the cock bird to build more than one nest, and then for the hen bird to carefully select and feather the one she likes best. Hence one often finds in the near vicinity of the nest warmly lined with feathers, other nests unlined. In the March, 1895, number of the *Parish Magazine* I recorded the visit of a chaffinch and a cock redstart, or firetail (*Ruticilla Phœnicirris*), on Sunday morning, April 26, 1896.—*Parish Magazine of St. Andrew-by-the-Wardrobe* (Rector, the Rev. P. Clementi-Smith).

Heath and Tamarisk.—It is such groups as shown in the illustration that give refined beauty to the garden. It is quite simple grouping, this of Heath and Tamarisk, one of the loveliest of shrubs, and with a background of *Rhododendrons*. Colonies of *Daffodils* here and there have a spring freshness, when perhaps cold winds have browned the leaves of the surrounding shrubs.

The Hampton Court Vine.—A paragraph has been going the rounds of the general Press calling attention to the decrepit condition of the old Vine at Hampton Court. It has been stated that it was planted in 1678. Whilst that paragraph has given the old Vine an age exceeding its years by 100, there is also no special reason for concern at its present condition. The grand old Vine at Cumberland Lodge, which I saw not long since, is being renovated in a remarkable way, and that was planted as a young Vine from the Hampton Court stock. Only ten years later, whilst the Cumberland Lodge viney was encumbered with its mass of brick flues, little could be done to the inside border, in which are some roots, although the greater portion are outside, and doubtless far away. Since the removal of this brickwork, as it is seen in the illustration on page 320 of *THE GARDEN*, and has been replaced by hot-water piping, it has been found possible to top-dress and greatly help the roots that are inside, and so effective have been these operations that no better Black Hamburgh Grapes have been seen this year than were the dozen bunches sent up to Chiswick recently from Windsor out from this famous old Vine. That it will increase in productiveness and in the fine quality of its bunches and berries there can be no doubt. The Vine is, it is true, planted in the centre of the house, but the roots must have passed outside largely long since, as have those of the older Vine at Hampton Court, which is planted at one end of its viney. If the Board of Works would find the money the Frogmore authorities, who still have control of this Vine, would soon deal with it drastically. All the stone flagging which floors the house should be removed, the inside soil made into a well-renovated border, and every encouragement given for the formation of new roots. Severe pruning to compel the formation of new and stronger growths is needful, and, for a year at least, visitors should be rigidly excluded. The free admission creates a dry and impure atmosphere, and also clouds of dust, which coat the Grapes.

Big blooms.—When a grower of *Chrysanthemums* of the calibre of Mr. E. Beckett laments the difficulty in keeping large *Chrysanthemum* blooms this year owing to the unripe condition of the wood and the dampness of the season, one is tempted to ask why grow them. Look at the labour involved in growing a collection of big bloom plants; think also of the expense. Is the game really worth the candle, and is it absolutely essential to our complete enjoyment of the *Chrysanthemum* that these huge, mop-like flowers should be grown? Would anyone take the trouble to grow them were it not for the tempting prizes offered? When I called on one of the great growers the other day I found him busy pulling out imperfect petals. *Chrysanthemum* shows, I think, have to a large extent demoralised public taste. Is it not time that refinement took the place of size in growers' estimation?—A. D.

***Artemisia arborescens*.**—A handsome half-shrubby plant, with finely cut tripinnate leaves of a silvery grey hue. It is closely allied to the common Wormwood, but is more bushy and far more effective as an ornamental plant. It is a

seed. This is the time to sow it, if quite ripe. Being late flowering, it is often well into November before the seed is ripe. It is best sown as soon as ripe, and kept rather cool for a while. Sown in a box and placed under a stage in a cool greenhouse is a good place for it. Place glass over the box to keep out bugs and dripping water. Sown in November it may be left undisturbed until toward spring, when, in March, perhaps before, it may be brought from its winter quarters and placed on top of a stage, but keep the glass over the box and the whole shaded. The object in bringing it up is that it may get more heat to start the seeds growing. The seedlings should soon appear, and if potted or pricked off into boxes they make nice plants for selling when a year old.—*Florists' Exchange (America)*.

***Gypsophila paniculata flore-pleno*.**—Double flowers do not generally commend themselves for lightness, but this is an exception, having all the graceful branching habit of the type, with pure white, tiny, bell-like flowers, which last a long time. I was at first under the impression that the whiteness of the



GROUPING OF HEATH AND TAMARISK.

native of the Mediterranean region, where it grows in open stony places, and will not stand our winters without injury. Cuttings root readily, and these may be kept in a cold frame. Planted out in the spring they soon attain a good size, branching freely, and eventually reaching a height of 4 feet to 5 feet.

***Liriope spicata*.**—This interesting species, belonging to the natural order Hemodoraceæ, is often grown in a cool greenhouse, and is exceedingly useful as a decorative plant. It is, however, a perfectly hardy perennial, forming tufts of long, narrow evergreen leaves, and from amongst the foliage arise the livid purple stems, bearing spicate racemes of small violet-blue flowers. These are carried well above the leaves, and reach over 1 foot in length. With its neat, evergreen, tufted habit it is a desirable plant as an edging for beds or for groups in front of taller plants in shrubbery borders. A native of China and Japan, it does not flower till the latter half of October. It is easily grown, and flourishes in any good garden soil.—W. IRVING.

Sowing Clematis seeds.—The *Clematis paniculata* seeds so freely that anyone having a strong plant will be almost sure to have a lot of

flowers was due to the plant being grown under glass, but I find it is equally as white when grown out of doors. It may be propagated from cuttings early in the spring. Plants started in a little warmth will soon give good cuttings. They should be taken when about 2 inches long, a few of the bottom leaves removed, and the cuttings put in firmly in light sandy soil. In a frame with a slight bottom-heat they will soon root. Cuttings rooted last March made good plants for 8-inch pots and flowered about the middle of September. It appears to do much better outside than under glass, and strong plants, when established in the open ground, should produce an abundance of bloom, which for bouquets, vases, or any cut flower work will be most acceptable. Grown in pots it is very effective in the conservatory or for exhibition groups. I may add that this was sent out early in the year by Messrs. Thompson and Son of Wimbledon, but as there is a little difficulty in propagating it is not likely to be very plentiful for some time to come.—A. H.

Mr. R. Wallace of Kilnfield Gardens, Colchester, was returned for the North Ward of Colchester in the recent municipal elections with an overwhelming majority.

Aster mongolica.—For distinct beauty this Siberian Aster is, perhaps, one of the best of all the species. The leaves are quite unlike those of the Aster tribe generally; they are lanceolate, and roundly serrated at the margin. The dominant colour is in the ray florets, which are white with a bluish tone, the solitary heads being $1\frac{1}{2}$ inches to $1\frac{3}{4}$ inches across. It is one of the most elegant of Asters for its size. Ample space is required for its development, and the species is not of the weedy type. After many weeks of flowering this plant was in good bloom at the close of October at Kew.

Galanthus nivalis octobrensis.—So far as the latter name is concerned this form at Kew has been a failure this year, for October has come and gone and it is not in bloom. But a little tuft would in a few more days be expanding its flowers.

Russelia juncea.—This scrophulariaceous plant is very different in appearance to either the Calceolarias or Pentstemons, both members of the same order, for in the Russelia the long slender Rush-like branches are almost without leaves, and the entire specimen is exceedingly graceful. The flowers are tube-shaped, about an inch long, bright scarlet, and borne at this season. It is a native of Mexico, from where it was introduced in 1833, and in this country succeeds best in an intermediate or stove temperature. The peculiar style of growth admits of this Russelia being treated in different ways, for trained to a rather the slender drooping shoots hang down like a fringe, while if the principal branches are secured to a good stake, and the minor ones are allowed to arrange themselves at will, a very graceful specimen is the result. As a basket plant, too, it is seen to advantage. For its successful culture the soil must not be too adhesive, a suitable compost being equal parts of peat, loam, and leaf-mould, with an admixture of sand. Thorough drainage and a liberal supply of water during the growing season are essential. A garden form sent out by M. Lemoine of Nancy, under the name of R. Lemoinei, is very pretty, and even more pendulous in growth than the preceding.—H. P.

Shrubby Veronicas.—The merits of these as flowering plants for this season of the year have scarcely been recognised to the extent that one might expect, for they are almost hardy, and when at their best are very beautiful. Of late years some forms with particularly large massive spikes have appeared, and of these Mr. H. B. May of Edmonton has once or twice this season exhibited some charming little examples, all grown in $4\frac{1}{2}$ -inch or 5-inch pots. The variety *Reine des Blanches* is the finest white-flowered form I have yet seen, while other good varieties are: *Diamant*, deep purplish crimson; *La Seduisante*, a beautiful rich purple, leaves shaded bronze; and *Le Merveilleux*, amaranth red. These are all easily propagated, and, grown and treated much as Chrysanthemums, are valuable for the greenhouse at this season. Our brethren in the extreme West of England and in Ireland can enjoy them as outdoor shrubs, but in less favoured districts they are greenhouse plants. Where plants of sufficient size are available these Veronicas are useful for cutting, as they last well in water, and the neat glossy foliage is very pleasing.—T.

Polygonum capitatum.—Owing no doubt to the congenial moist weather we have experienced this season, which is somewhat akin to that prevailing in its native habitat, this pretty little plant has been charming, forming a cushion of foliage studded with a profusion of dense round heads of small pink flowers. A half-hardy perennial, it is generally killed by frost in winter, but reproduces itself freely from self-sown seeds. These seedlings grow rapidly under favourable conditions, and form carpets with long, trailing, red-brown stems, which root as they spread. The ovate leaves 1 inch to 2 inches long, dark green, are marked with a V-shaped band extending from the midrib at the centre to the base of the leaf. Borne on long stalks well above the foliage, the flower-heads are produced in abundance in the axils of the upper leaves. Given sufficiently moist conditions it is a useful plant for covering the bare

ground beneath taller growing subjects, keeping up a long succession of bloom during the summer and autumn. Spread over the sub-tropical and temperate Himalayas from Chamba to Bhotan at an elevation of 3,000 feet to 8,000 feet, it is generally found on rocks and old walls.—W. IRVING.

Cheiranthus Allioni.—Not the least attractive feature of this plant at this time is the rich orange colour of the flowers. In the rock garden generally we have not too much of this colour. Its true flowering season is spring and summer, but a few stray sprays are very welcome just now at Kew, the colour striking and exceptional.

Oxalis lobata.—Among the varied hardy plants from Messrs. Cutbush and Son at a recent Drill Hall meeting was the low carpeting to the group of *O. lobata*. Unfortunately, there was no sun, and the glistening golden flowers remained closed. The plant is about 6 inches high when in flower. The species is suitable for a snug, warm corner or sunny ledge in the rock garden, and when in bloom is very bright. Those who have sunny gardens and hot soils should grow this *Oxalis*.

Polygonum affine.—This low-growing, free-flowering alpine requires no special soil, but it delights in a sunny exposure in the rock garden. In such a place the leaves and the almost endless inflorescences render it one of the most conspicuous of autumn-flowering plants for the rock garden, though for the rock garden advisedly inasmuch the plant will succeed quite well in the ordinary border. In the richer and deeper soil, however, the leafage is wanting in colour. With deep and rich soil and practically an unlimited root-run the plant will grow apace. Given a warm or sunny position, limited root-run, and high and well-drained soil it is a picture of colouring in leaf and flowering.

Chrysanthemum Bronze Soleil d'Octobre.—This sport when shown before the Royal Horticultural Society two seasons ago obtained an award of merit. How much this award was influenced by the fact that the original form was a good plant is, perhaps, a doubtful point, yet it had something to do with the variety obtaining the award. After growing the so-called bronze variety for two seasons I am inclined to the belief that the award was not merited, and for the simple reason that the bronze colouring under glass is far too fleeting. Naturally the group of plants set up for the award is judged on its merits without knowledge other than that presented by the group at the moment. That this is insufficient, and that there is need for such things to be tested by some disinterested authority, is, I think, proved by the fact that this so-called bronze sport when placed under glass as lifted plants from the open almost immediately reverts to the yellow form of the original, or, at least, something not so good. At the present time I have a few hundred plants that have hardly a flush of bronze in them, while *Sources d'Or*, given the same treatment, is the delight of all. Cuttings starved in boxes of the above, carrying one flower each or less, are beautiful in colouring, and if the majority were of this order the variety would be passable enough. That this evanescent character is not wholly due to placing the plants under cover may be gathered from the fact that a few plants left in the open have also reverted in a similar fashion.—E. J.

La Societe Nationale d'Acclimatation.—The last bulletin issued by this society, whose headquarters are in Paris, consists of "Notes on some Palms that may be grown in the Open Ground in the neighbourhood of Nice," by M. A. Robertson-Prochowski. These notes afford extremely interesting reading. Writing of the *Chamedorea*, the author says: "This plant is dioecious, and, in order to obtain fertile seeds, one must have plants of both sexes, and they must flower simultaneously. Most of the plants I possess being still young, I have only been able to obtain seeds this year, and these are from a species I believe to be *C. gemoma formis* (Wendl.). My young plant, which is flowering for the first time, is carrying four bunches, each one containing about 200 fruits perfectly developed, and which ripened in April. They are about half the size of an Olive,

black and shining. These black fruits, together with the orange-coloured fruiting stems, have a very ornamental effect. Some species have red fruits. This is the first time, so far as I know, that a *Chamedorea* growing in the open ground in Europe has produced fertile seeds.

The "Hurst and Son" Musical Society.—A concert under the auspices of this society will take place at the Holborn Restaurant on the 18th inst. A donation will be given from the proceeds to the Gardeners' Royal Benevolent Institution. We wish the society success. The hon. secretary is Mr. F. A. Washington, 132, Houndsditch. Mr. N. N. Sherwood is president.

Ophiopogon Jaburan variegatum. Two specimens of this plant in pots have been standing upon two pedestals in my front garden for three months past. Exposed to all weathers, they are brilliantly coloured and blooming freely. It appears to be much more of a moisture-loving plant than is generally supposed. The pans in which the pots are standing are almost constantly full of water, yet there is an entire absence of the decayed points to the leaves one sees on plants grown in a warmer and drier temperature of the greenhouse.—R. D.

Scottish railway rates for horticultural produce.—The efforts of the railway companies throughout the kingdom to restrict the light loading of waggons are proving troublesome to market gardeners and farmers in many districts. The Scottish railway companies are now endeavouring to prevent the consignment of less than one ton of horticultural produce by goods trains, and Mr. Douglas, market gardener, East Duddingston, Edinburgh, has laid the matter before the Scottish Chamber of Horticulture. The question was discussed by the Chamber at a meeting held on November 4, when it was remitted to a committee to meet with the market gardeners and consider the matter with a view to action being taken to prevent the proposed regulations from being carried out. It appears that the object of the companies is to secure that small consignments should be sent by passenger trains. It is obvious that the increased rates would be very injurious to market gardeners and agriculturists, and it is to be hoped that the action of the Chamber will lead to good results.—S.

Rubus roseifolius.—The note of "T." on page 312 seems to leave it doubtful whether this Himalayan ground shrub is hardy in English gardens. It lived through two winters in the cold soil of my garden in Cheshire in an open border, and was then unwilling to be ejected, because it showed a disposition to monopolise the border, throwing out strong underground runners 3 feet long the first year, and multiplying them the second. It flowered each August, but did not attempt to set fruit. Two or three years ago some ripe fruits of *R. roseifolius* were exhibited at the Shrewsbury show in August by Messrs. Smith & Worcester. They were just like Strawberries of moderate size and very bright scarlet. The attendant told me they were ripened in the open air, but I thought he must be mistaken. There seems to be an erroneous belief amongst Continental nurserymen that the plant is a hybrid between a Strawberry and a Raspberry. It came to me from abroad, with the name *Fraisier-Framboisier*.—C. WOLLEY DOD, *Edge Hall, Malpas*.

Decorative Chrysanthemum Kitty Crewe.—We have none too many pretty decorative Chrysanthemums, and therefore this variety, which was distributed last spring, is all the more welcome. Flowers of it have just arrived from Mr. W. J. Godfrey of Exmouth; it is a charming acquisition. Mr. Godfrey has been growing this variety in pots under glass, and the flowers are just over. The blooms that he has sent to me, however, were cut from the open, where the plants have developed quite naturally. The sprays are freely flowered, some being partially open and others fully developed. Each bloom is borne on a good length of sturdy foot-stalk, so that each one may be used without interfering with its neighbour. The petals are of medium width and pointed and loosely incurved. The inside colouring is a rich shade of reddish

with a golden reverse, a very charming

The height of the plant is about 2 feet, hardly requires staking.—D. B. C.

rodendron nutans.—This is an old, and uncommon *Clerodendron*; it flowers the autumn months, and forms rather a rowing shrub, clothed with dark green lanceolate leaves, which are wavy at the tips. The flowers, which are in drooping racemes at the points of the shoots, are individually an inch across and pure white, while, as in other members of the genus, the large corolla whence each flower protrudes is of a tint, thus forming a striking feature by the marked contrast between the two. This, which is a native of India, was figured in *Botanical Magazine* as long ago as 1831, but did not appear after that to have been lost to gardens, and was unknown to most of the generation till brought from Calcutta by Mr. Head, for several years superintendent of the horticultural department of the Crystal Palace.

It was given a first-class certificate by the Horticultural Society in the autumn of 1886, a time was often met with, but during the years it has become far less common. *Clerodendron* is essentially a stove plant, in structure it needs a light position, as if shaded the calyces are not nearly so brightly coloured as if in a good light. Cuttings of young growing shoots strike root very readily if placed in a close propagating case. Red is the only insect pest that gives any trouble.

lanthemum Jubilee.—*Helianthemum* are among the best of our June and July for the rockwork. They revel in the sun and can stand more dry weather than most flowers, though it must be said that they suffer in bloom when they are fairly well set. By this I do not mean that they must have much water. The brief life of their flowers is a drawback, but this is not so pronounced in the varieties with double flowers, of which there are several. Most of these, however, their flowers too far down, so that unless they are above the level of the eye the flowers are not enjoyed. One old double variety, called *double fl.-pl.* or *H. venustum fl.-pl.*, though it is under several purely garden names, has a defect, and holds its perfectly double flowers boldly out from the plant. It was the best of all the double forms for low rockwork and has proved a great favourite wherever used. The want of a set of varieties of this habit, but with different colours, has been remedied by the appearance of the bright yellow one *Jubilee*, which I observe is now in common. It has been welcomed by those who like *Helianthemum*. I have had it here for several years now, and I admire it even more than the old double scarlet, from which it is a sport. It is in the garden of Mr. P. Hill-Norman of Hill, Aberdour, and we owe much to Mr. Hill for having propagated and fixed this beautiful sport along with a more recent one of a yellow. *H. Jubilee* is a beautiful, clear, light yellow flower, which pleases everyone for profusion of flower, its full, but not heavy, flowers, its fine colour, and its habit of growth.—S. ARNOTT, *Carsehorn, by Dumfries,*

(3 inches long) at the middle of the stem, dark glossy green, rough beneath, lance-shaped, scattered, ascending. Flowers two to five in a loose umbel, horizontally poised or drooping, trumpet shaped, 3 inches across, 4 inches long, white, spotted brown low down the distended funnel, coloured greenish externally, especially on the midribs; the petal tips slightly recurve, and the anthers are yellow; very variable. Flowers in July. The Burmese forms are mainly smooth-leaved, and the Yunnan forms rough on the under side. We have seen specimens heavily spotted with claret nearly up to the petal tips, and others scarcely at all spotted and with a faint lilac flush at the throat. A few only are fragrant. Inhabits varied sites on high mountain ranges 4,000 feet to 6,000 feet above sea level. Upper Burma and Yunnan. Its suppressed leaves at the base of the stems indicate association with scrub.

CULTURE AND USES.—This plant prefers a warm bed or border, and to grow among the Heaths and peat-loving plants in the warmer parts of Britain, especially where the soil is light and sandy. It is perfectly hardy, but in cold, wet clays and the extreme north it should be grown in an open frame or cool house. It thrives well in the light soil at Kew, but in heavy soil overlying clay a frame is necessary for it. If one can make certain of securing the Yunnan plant cultivation becomes an easy matter, for this form will grow well among sun-loving Ferns or strong-growing alpines in rocky recesses. Indoor cultivation should be cool, with shade from strong sunshine only, and the staple should be loam rather than peat for pot culture. The bases of the stems should be shaded in every case, or stem-roots will not develop.

L. Beerenii, Beeren's hybrid Turk-cap Lily (*L. chalcidonicum* × *testaceum*).—A richly-coloured garden Lily scarcely distinguishable from a slender *testaceum* in its bulbs, leaves, and stems. Flowers brick-red, nodding and recurving as in *chalcidonicum*, and with the fragrance of *testaceum*. Flowers in July. Rare in cultivation. Culture and uses as for *chalcidonicum*, which see.

L. Bolanderi (S. Watson) Bolander's Martagon Lily.—A dainty species from Western America, but in no wise showy and of doubtful garden value. Bulbs ovoid, white, as large as a hen's egg; scales much pointed and closely arranged; roots stout and few. Stems slender, green, 2 feet long, hollow, sparsely rooted below. Leaves in three to four whorls of ten or more each, confined to the lower portion of the stem, pale green, of thin substance, 2 inches long, broadly lance-shaped, widest near the tips. Flowers three to six in a loose umbel, under good cultivation in two tiers of four or five each, trumpet shaped, sub-erect, not reflexing, 1 inch to 2 inches long, 1 inch across, coloured dull red, and spotted dark purple internally, a lilac sheen suffusing the flowers one to two days after expanding. Not common in cultivation. Inhabits open woods of Humboldt County, California, and Oregon, growing amid a tangle of dwarf scrub.

CULTURE AND USES.—This is a shade-loving Lily that would associate better with Ferns in a cool situation, the bulbs being very liable to decay from excessive damp; it is almost necessary that the Fern's roots should encircle them. Where *Trillium grandiflorum* will thrive, *Lilium Bolanderi* will do so also.

L. Browni (Brown's Trumpet Lily).—A very beautiful garden Lily long grown in Europe, but whose origin is somewhat obscure, probably China. Bulbs 6 inches to 10 inches in circumference, much wider at the top than

at the base, white, composed of clasping thickened scales, almost flat on the top. Stems stout below, flexible, 2 feet high, curved towards the flower, the growing point nodding in a young state, purplish, producing masses of roots and one to three bulbils at the base. Leaves lance-shaped, three nerved, 6 inches to 8 inches long, longest, broadest, and recurving near the inflorescence, the lower ones mere bracts, which fall away early, leaving 6 inches to 8 inches of the stem bare. Flowers one to two, more rarely three, trumpet-shaped, of stout substance, nodding or horizontally poised, 6 inches to 8 inches long, tapering gradually from the base to the expanding mouth, coloured a rich ruddy brown externally, greenish internally when it first opens, changing to a pure white; the three inner petals and the margins of the outer ones not exposed to the sun in a bud state pure white externally, the coloured portions seen in strong contrast. Petal tips reflexing, stamens hairy at the extreme base. Agreeably fragrant. Not to be confounded with the Japanese *L. Browni* (*L. japonicum colchesterense*). Common in cultivation. Flowers in July. A very beautiful Lily, requiring a full exposure to the sun to develop its rich external colouring. Forced to flower under shade early in the year, it is pure white throughout.

Var. chloraster (Baker) is a robust variety collected by Dr. Henry in Central China in 1888. Bulbs, leaves, and stems as in *sulphureum*, but the stems do not bear axillary bulbils, and the leaves are mainly shorter and broader. Flowers 6 inches to 7 inches long, shaped like those of *sulphureum*, keeled green on the mid-ribs on both surfaces, yellowish white internally, flushed ruddy brown near the base externally, often covering the lower half of the flower. Filaments markedly hairy at the base. Closely resembles *L. sulphureum* in all superficial characters, differs in its green-striped petals, its hairy filaments, and in its internal whiter colouring. Not common in cultivation. Flowers in August and September. Inhabits mountains and glens in Ichang, growing in sheltered but not shady places.

Var. leucanthum (Baker).—See *L. leucanthum*.

Var. odorum (Baker).—See *japonicum colchesterense*.

Var. platyphyllum (Baker).—A strong-growing form, 4 feet high, with thickened, broad leaves, purplish stems, and two to three flowers of stout substance. Not common in cultivation. Flowers in August.

Var. viridulum (Baker) proves when cultivated side by side with *L. japonicum colchesterense* to be identical with it.

CULTURE AND USES.—The type plant, although we do not know its native habitat, bears unmistakable signs of association with low-growing shrubs in its suppressed leaves at the bases of the stems and its masses of stem roots. That the position is open we can gather from the fine development of the leaves at the top of the stems and from the poor growth it makes when grown in shady green-houses. The cultivation of this plant hinges upon protection of its bulbs, whose closely compressed scales hold water at their bases, and the bulbs decay as a consequence. We have tried many ways of preventing this. Planting the bulbs on their sides reduced the losses slightly, but with this species, as with many others, we have found a low carpet of vegetation helpful, and that each bulb thrives better if placed on an inverted pot (a small one, technically known as "thimbles," is a useful size). This scheme is the best known to us. Our practice is to plant deeply, to

THE LILIES.

(Continued from page 297.)

M. BAKERIANUM (Collett and Hemsley), a Lowi (Baker), Professor Baker's Lily.—An ant and valuable addition to our garden, though known long ago. Very distinct in shape and colouring of its flowers. 4 inches in circumference, white, purplish exposed, globose, very fibrous, roots stout of several years' duration. Stems very dry, smooth or slightly rough, 3 feet long, bearing one to three bulbils and a few roots at base. Leaves mere bracts below, largest

place the bulb on the inverted pot and surround it with sand, affording the site a mulch later, and finally to plant Pansies, Arabis, or other carpeters whose roots descend deeply, and in default of better plants to allow weeds to grow to a certain limit. Soils for this Lily should be light, and no manure should surround the bulbs.

POT CULTURE for greenhouses is a repetition of the treatment of *L. auratum*, the small inverted pot being again used instead of drainage, and soil added little by little as the stem roots develop. The forms of *L. Browni* more resemble sulphureum in growth and in cultural requirements. These prefer a well-tilled, well-drained soil, for their basal roots are unusually stout and active. Their bulbs are not liable to decay, and are altogether more hardy. We can recommend these for association with border plants of stronger growth, and for use in cultivated shrubberies. Their tall stature, greater vigour, and love of sunshine render them excellent garden plants, and quite easy to grow. They produce huge masses of stem-roots, hence should be buried deeply and shaded at the base, and they are excellent plants for pot culture, succeeding under treatment recommended for the type. Those forms whose beauty lies in their external colouring require full exposure to sunshine and air for two or three weeks whilst developing their buds, or the colouring will be scanty and irregular. October and November are the best months for planting.

L. bulbiferum (L.), the bulb-bearing Lily.—A familiar species, widely spread throughout Central Europe, and long known to cultivation. Its flowers are neat and of refined colouring, brighter and more pleasing than those of *Croceum*. Bulbs white, globose, 6 inches to 8 inches in diameter, roots mostly annual. Stems 2 feet high, slightly downy when young, bearing one to four copper-tinted bulbils in the axils of the leaves, especially near the top, basal roots numerous and strong. Leaves lance-shaped, scattered, 4 inches long. Flowers, five to eight in a compact umbel,

or dense spike if more than eight, erect, 5 inches long, 5 inches across. The petals spoon-shaped, forming a cup-shaped flower, coloured pale red, orange near the base, and minutely spotted black, the spots raised on petaloid processes near the base merging into the orange ridges which run down the base of each petal. Common in cultivation. Flowers in June. The probable parent of the garden race of erect-flowered Lilies known as *umbellatum*, which see.

CULTURE AND USES do not differ in any respect from those of other European erect-flowered Lilies. This plant grows in any good soil, and it associates well with the rank and file of border plants in full sunshine. It is very vigorous, and its stem-roots are numerous and strong, hence a carpet of low-growing herbs is desirable, though not essential.

G. B. MALLETT.

(To be continued.)

NOTES ON HARDY PLANTS

A FLOWER GARDEN ON A WALL.

SEND you a photograph of a part of a wall garden. The pink Hollyhocks and *Lilium speciosum album* are in the border behind. Growing in the wall are single Pinks, and on the left Hyssop, with *Saponaria ocyroides* below. On the right is *Arabis alpina*, and at the foot of the wall *Nepeta* (Cat Mint). This piece of wall was very pretty. I think the *Nepeta* is one of the best of wall plants; it remains in bloom for a long time. S.

DICENTRA CHRYSANTHA.

ALTHOUGH small in the number of species comprising it, the genus *Dicentra* contains several ornamental plants, one of the best known being probably the useful perennial *D. spectabilis*. A less common one is *D. chrysantha*, a handsome plant from California, where it is found growing on arid hills from Lake County to San Diego. Beginning to flower early in July, a plant which occupies a position at the foot of a south wall is still producing an abundance of its golden yellow flowers at the

end of October. It is not a suitable plant for the ordinary herbaceous border or for exposed situations, but requires a warm sheltered position in light soil. Under these conditions it makes a handsome bush-like plant 3 feet to 4 feet high, with finely divided tripartite leaves of a glaucous hue and long branching panicles of flowers. Apart from its flowers it is worth growing as a foliage plant alone, its freely branching habit and rigid leaves commending it for that purpose. A very shy seed producer; this fact may account for its scarcity in cultivation, and imported seeds do not generally germinate for a year after sowing, often failing altogether. With all these faults it is a plant that will well repay the extra care and attention necessary for its success. W. LEVING.

FUNKIA TARDIFLORA.

THIS comparatively new Funkia, which is illustrated on page 297 of THE GARDEN, was, as then stated, first sent to this country by Herr Max Leichtlin of Baden-Baden. Being much struck with its beauty at Kew two or three years ago, I wrote to Baden-Baden for particulars of its origin, and Herr Max Leichtlin, with his usual kindness and courtesy, sent me the following notes, which were at that time published in THE GARDEN, but which it may be interesting to repeat. Herr Max Leichtlin wrote: "About 1870 Mr. Thomas Hogg went to Japan and brought a large collection of Japanese plants to New York. That Funkia was among them, and the stock went to Woolson & Co., a nursery firm at Passaic, New Jersey. Anxious as I was, and still am, to procure novelties even from remote corners, I bought half a dozen plants, which were sent over under the name of Funkia sp. Thomas Hogg. I named it *tardiflora* on account of its late flowering." From this it may be gathered that the Funkia in question is one of many good things that are known for years before their merits are generally recognised, while on the other hand numerous plants become popular at once. T.

POLYGONUM CYMOSUM.

THIS is one of our best hardy plants, and can be highly recommended for the flower garden. The growth is rapid, and in good soil the plant will attain a height of 5 feet or 6 feet; it is never shabby in appearance at any season. It is one of the most useful of our autumn-flowering plants. It is at the time of writing (October 27) covered with beautiful white flowers, filling the air with its perfume. When planted away from other subjects it has a rather pretty arching growth, and therefore is not quite fit for forming centres or using in groups, so much as for planting singly on the turf, thus leaving it to take care of itself. It is also good for any position in which a bold and distinct type of vegetation is desired. When we come to have fine groups of hardy foliage plants in our gardens the use of such plants will be much extended. The soil should be deep and good. If the plant is to develop strongly labour necessary to grow it well should never be begrudged.

T. B. FIELD.

COLCHICUM TENOREI.

As winter draws near the few Meadow Saffrons still in bloom become the more interesting; they are happier in the bad weather than the Crocuses, though far less refined in their way than these charming flowers. Among the latest of the Colchicums to bloom in late autumn and early winter is *C. Tenorei*, which has been introduced to British gardens as *C. Bisignani*. It came into flower here towards the end of October, and given ordinary conditions will last in beauty for some time. It is not so large as some of the Colchicums, but



NEPETA AND OTHER FLOWERS ON A WALL GARDEN, THE RESULT OF EIGHTEEN MONTHS' GROWTH (COUNTY BERKSHIRE).

is bright and effective with its warm tone of deep-purple, while its sturdy habit enables it to stand more bad weather than some of the others. It is now making a bright patch of colour at the top of one of my rockeries. It is still rather pensive.

Carsenhorn, by *Dumfries*, N.B. S. ARNOTT.

THE ROSE GARDEN.

CRIMSON AND SCARLET ROSES FOR AUTUMN.

VALUABLE as these are in summer, how much more precious the brilliant red and scarlet varieties become in autumn days, when there is so much yellow and blue among mixed and annual flowers. The list of really excellent

ones for massing is comparatively small; I mean regards the bright-coloured Roses alluded to. In a fine bold bed there is no variety to compare to

Grües an Teplitz.—Its trusses of vivid flowers, though somewhat drooping, produce quite a gay mass of colour if planted fairly close and then hard pruned. This variety on standards is a splendid feature, and for a terrace wall 4 feet high there is no Rose more suitable, especially when the beautiful flowers come just over the wall, as they will the second season after planting.

Princesse de Sagan is another excellent variety, though one wishes its growth were more upright, but it makes amends for this in the intensity of its coloring. For a rich glow of colour the beautiful Rose

Noir des Rosomanes might be more frequently planted. It would be as well to treat it somewhat the same way as *Grües an Teplitz*. The two brilliant Monthly Roses

Cramoisi Supérieure and *Fabvier* cannot be omitted. The latter has the better habit of the two, being more rigid in growth, consequently more decorative. A splendid bed could be formed by planting *Fabvier* in the centre, then a circle of *Cramoisi Supérieure* or the old crimson China. There is another China Rose of rich colouring not to be met with, namely,

Marie Wolkoff.—Its flowers are of a very distinct shade of gooseberry-red. It has a peculiar effect in its green-centred blossoms, although towards autumn not so evident.

Marquise de Salisbury maintains its own as a brilliant bedding Rose. I am persuaded that such ones give far greater satisfaction when hard pruned each spring. This results in a more compact growth, and not only this, but those fine notes are produced from the base that always terminate in showy bunches of blossom.

Princess Bonnie and *Ma Tulipe* are doubtless closely related. Both are worth growing for their delicious fragrance alone, but apart from this their use, informal flowers produced so freely have a vocation for many individuals.

Francis Dubreuil is a lovely red Tea, best seen, perhaps, on a standard.

Sou. de Thérèse Level is another fine red Tea, so best on standards. The handsome Niphetos-sped buds can always be turned to a useful purpose.

Papa Gontier may, perhaps, be included here, though it approaches rather near the rich pinks in autumn, but any Rose even of this tint is very noticeable at this season of the year.

Liberty is somewhat disappointing in late September. There is a lilac shade to the older flowers, which is rather objectionable. I think this would not be so noticeable if we had a sunny time and the old flowers were frequently picked off.

Perle des Rouges must not be omitted from my list of brilliant autumn-flowering Roses. The great mass of colour, if open to improvement, is very useful just now. Among the Hybrid Perpetuals, a class that contains so many gorgeous specimens, there are few really good autumn-blooming ones. Some produce fitful if splendid individual

flowers, and, if space can be afforded, we should not omit them, as they undoubtedly hold the palm for fragrance. One variety especially brilliant just now is

Louis van Houtte, the rich coloured maroon shaded flowers being quite up to their summer excellence. Then there is another good sort,

Mme. Victor Verdier, whose globular-shaped double and sweetly fragrant blossoms, even though not so numerous as the Teas, are very precious. Other good bright-coloured H.P. sorts that will yield a fair number of autumn blossoms are *Senateur Vaisse*, *Dr. Andry*, *Ella Gordon*, *Duchess of Bedford*, *Alfred Colomb*, *Duke of*



NIPHETOS ROSE AS A POT PLANT.

Albany, A. K. Williams, Lord Bacon, Comte Raimbaud, Fisher Holmes, Victor Hugo, and Ulrich Brunner. The whole planted in one bed, giving most space to the last-named, would have a good autumn effect, especially if some of the sorts were in standard and half-standard form.

TEA ROSES IN PILLAR FORM.

I THINK we lose much of the beauty of Tea Roses when grown as pot plants by the stereotyped fashion in which they are usually trained. Perhaps the tying out of each growth to a stick is necessary where the perfect development of every bloom is required for exhibition, but apart from this a pot

plant is quite as elegant when growing upright, as shown in the illustration of *Niphetos*, and, moreover, one is enabled to grow several more plants in a house. Let anyone visit any large market establishment and he will find the invaluable old favourite *Niphetos*, together with *Bridesmaid*, *Perle des Jardins*, *Sunrise*, &c., all growing in this pillar form. How charming they are with their large perfect blossoms, so free from all artificiality. Just a centre cane is sufficient, the side growths as they develop being gently looped to the cane. There are some who decry the drooping blossoms of certain sorts of Tea Roses, such as *Souvenir d'un Ami*, but to me they are delightful, and seem specially designed to protect the exquisite flowers from rain, so that I should never condemn a Tea Rose because its flowers drooped, but would use all means to counteract this by growing such sorts on standards or training them in the form illustrated above.

ROSE FRAU KARL DRUSCHKI.

UNMISTAKABLY this Rose is the finest novelty of the last few years. What a pity its original name of *Snow Queen* was not adopted, for it is the most regal of all the white Roses grown. The grand half-open flowers with their deep rigid petals are models of beauty. The tarnished outer petals are unavoidable in our climate outdoors unless the blooms be protected; but under glass this disappears, so that we have in this variety a forcing Rose of the first order. If we can obtain Hybrid Perpetual novelties such as this, with its splendid autumn-flowering habit and extraordinary vigour, the Hybrid Teas will find formidable competitors for popular favour. But after all is not this Rose as much of a Hybrid Tea as some others already in the group? I think the words "Hybrid Tea" will soon need to be revised. Cannot some one coin a word that will express all that is necessary without opening the door to dissension as to which group certain free-flowering Roses should belong to?

ROSE KILLARNEY.

THE delicate fragrance of this delightful Rose never seems so noticeable as in the October days, when the deep-petalled flowers remain on the plant quite a long time, considering the semi-double nature of the variety. There is this peculiarity about the Rose that, instead of its colour being heightened in autumn, as is the manner of most Roses, they come several shades paler, and are, if anything, more beautiful. The pale pink tint is suffused with a flesh-white just now, quite too beautiful to describe. The Rose appears to be one of those that must grow freely. If at all stunted, then the huge petals diminish in size, and the flower is not nearly so attractive. To maintain the necessary vigour and substance of petal the plants should be transplanted when the vigour seems to be on the wane, taking the precaution when so doing to work into the soil a little bone-meal, say about a handful for each plant. Killarney makes a fine standard or half-standard. Anyone desiring a long-budded pink Rose for a coat flower should grow a good number of this variety.

PHILOMEL.

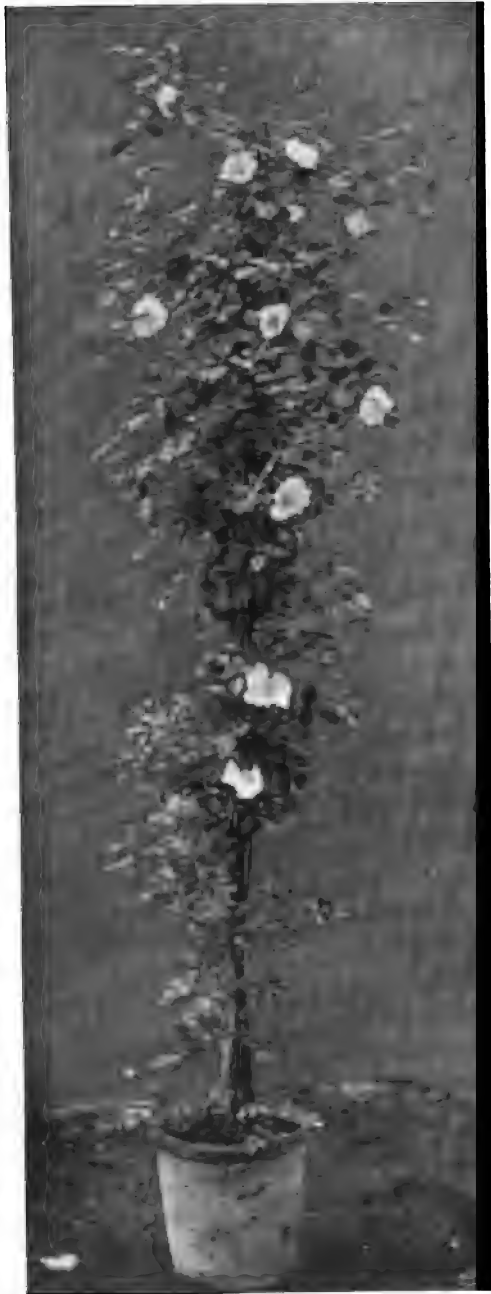
ROSE ETOILE DE FRANCE.

THE Rose growers have been waiting, like queenless bees in a hive looking out for a new ruler, for a good red Rose to have the qualities of an exhibition bloom on one hand, an abundantly free and continuous blooming habit on the other, a decidedly good colour, a sweet perfume, and vigour. All these qualities are embodied in the new Rose *Etoile de France*, which Mr. Pernet Ducher of Vennissieux-les-Lyon, France, now gives to the world. It is just what was wanted to put beside *Kaiserin Augusta Victoria*, *Caroline Testout*, *Mme. Ravary*, *Mme. Pernet Ducher*, *Hon. Edith Gifford*, and the other beautiful and continuously flowering Roses which form our growing kingdom of the decorative Roses. *Etoile de France* will be as popular among the dwarfs as *Gloire de Dijon* has been among the climbers. As a matter of fact in colour it nearly approximates to *Fisher Holmes*

with a glow of scarlet bloom on its petals, which suggests Victor Hugo, while as for perfume it is the true otto of Roses, which we all like, with just a reminiscence in it of the bouquet of La France, which may possibly enter into its pedigree. Its advent marks a great advance in our gardens, and it is just what was wanted. THE HERMIT.

ROSE JERSEY BEAUTY.

THIS, one of the most elegant of the wichuraiana Roses, is now so well known that little need be



ROSE JERSEY BEAUTY AS A POT PLANT.

said in its praise. Its glossy foliage and large creamy white single blooms are very beautiful, so wonderfully like a Cherokee Rose in all save colour. The illustration shows what may be obtained by growing the plants in pots and in columnar form, and doubtless they will be almost as largely grown for this purpose in the future as they are for clambering over rocks and banks. Although the single varieties are remarkably handsome, I imagine it will be such sorts as Dorothy Perkins that will be in most request. I know nothing more elegant in

the way of Rose sprays than this lovely variety, and, of course, being double, the flowers are more lasting than the singles.

ROSE WHITE LADY.

THIS splendid Hybrid Tea is as yet unsurpassed, not only for exhibition, but for garden decoration. In June it is probably seen in its most beautiful form, for then the grand creamy white petals have a purity of tint not quite so pronounced later on. But at all times, even in the October days, good blooms may be culled that cannot be equalled by any other Rose of its colour. Somehow the very vigorous Roses, such as Margaret Dickson, are embarrassing in their vigour, whereas with White Lady one may plant them quite close, even to 1 foot apart, and a most effective mass of blossom results. If a taller centre were desired to the bed a few plants of Admiral Dewey would harmonise with White Lady. PHILOMEL.

ROSE MME. ISAAC PEREIRE AT ARBIGLAND, N.B.

ALTHOUGH the more recently introduced Roses are well represented at Arbigland, Dumfries, none of climbing or semi-climbing habit has proved more useful than this Bourbon Rose, which appears to be at its best in cool yet sheltered situations near the sea. In some places it is a poor summer Rose, and it is only in autumn that it is in perfection there. This summer it was unusually fine in some gardens, but at Arbigland it seems to come in good condition every summer as well as in autumn. I saw it there in the second week of October, and the blooms were of splendid colour and size, just as they were in the earlier months, and as they were in my own garden. Close to it on an arch was the Hybrid Tea Duchesse D'Auerstadt, but this, although of lovely colour, has not produced its blooms with any degree of plenty. It seems more suited for a warm wall when in cool gardens, while Mme. Isaac Pereire is perfectly at home in these on an arch or trellis. In the south-west of Scotland, especially near the sea, this Bourbon Rose is almost always a success in any form, and I know a garden where, as a standard, it is one of the best features of a fine border of hardy flowers. S. A.

TREES AND SHRUBS.

PRUNUS SPINOSA PURPUREA.

NOT many varieties of shrubs with red-tinted leaves are found in our gardens. Not to mention those which are brilliant only in autumn, there are some, such as the purple Hazel, the purple Berberis, and the purple-leaved Myrobalan Plum (better known as Prunus Pissardi), which preserve their colours during the whole season, taking a slightly greenish tint only towards the end. A Plum tree with leaves of a deep violet, and of vigorous and arborescent vegetation, is also found in the St. Julian. But we have not yet seen any variety of the hedge Sloe (Prunus spinosa) assume the red colour. The varieties of this known in collections are confined to those with double flowers, to P. s. fruticans, and to the equally vigorous P. insignis, which Carrière has already made known, and which resembles P. insititia L. This last seedling indicates that our common Sloe has a tendency to variation which may perhaps be put to profit. By cultivation its appearance changes, its branches become more slender, its thorns partly disappear, and its dimensions increase. It is no longer the Blackthorn, dwarfed and spreading—the plague of bad soils, so difficult to extirpate, but a bush which rapidly becomes civilised.

The variety which we would draw attention to is a proof of this. It is Prunus spinosa purpurea. Though discovered amongst a number of seedling Sloes, it is more vigorous than the type, less thorny, quite as floriferous, and has rather larger foliage. Its branches are erect, tapering and

striated with deep reddish violet, as are also the short petioles and the under surfaces of the leaves, covered with down while young, though afterwards smooth. The upper surface of the leaf is deep green marked with red, the under surface entirely wine red. The flowers, which we have not yet seen, are said to be pale rose. This number red tint will make a pleasing change among the foliage of our shrubs. If the plant preserves the propensity of the type to branch out and spread, it could be utilised among rocks in the driest soil. This novelty has been obtained by one of the cultivators employed by M.M. Barbier et Co., horticulturists of Orleans.—ED. ANDRÉ in *Revue Horticole*.

POLYGONUM BALDSCHUANICUM.

POLYGONUM BALDSCHUANICUM, which came originally from Turkestan (where it was found in 1860 by Regel), is a plant whose branches, woody at the base, may attain a length of 7 yards or 8 yards in the course of a year. The leaves are alternate, small, heart-shaped, glabrous, and of a beautiful green colour. The flowers are white, slightly tinted with pink. "Winged" fruits succeed the flowers. These are at first white, afterwards black, and contain one seed each. About the end of this creeper is covered with flowers, and blossoms again from August until the frost comes. It is therefore, in flower during the whole of the summer, and its use for garnishing arbours, trellis work, walls, or the stumps of old trees is self-evident. It grows vigorously, and cares but little for the nature of the soil, though it does not like soils which are too dry. For decorating walls it is preferable to plant it on the east or the west, for on the north it gives but few flowers, and on the south the leaves are often scorched during the summer.

During the summer pinch off the shoots which are useless. The buds which develop on the pinched shoots generally expand late in the season. Pruning consists in cutting out the dead wood and in suppressing the branches which have become tangled, as well as those which have become

Contrary to what has often been said, propagation is very easy and its methods numerous: First, by heeled cuttings about 25 centimètres long, made in winter from well-ripened shoots, and put into light soil in the greenhouse (since 1890 I have operated in this manner, and have been successful with seven or eight out of ten); second, by heeled cuttings 5 centimètres or 6 centimètres long, taken in January or February, and placed in soil in the propagating house; third, by small cuttings of half-ripened wood, 5 centimètres or 6 centimètres long, taken in August, and put in sand under bell-glasses in the shade. Layering in winter the woody branches give good results. This plant can also be multiplied by seed, but this method is rarely employed, for the seeds are seldom fertile in our climate. Polygonum baldschuanicum is hardly planted in a cool soil, in the Department of Flakou on the banks of the Creuse, at an altitude of about 300 feet, it has since the spring of 1899 withstood a temperature of 14° below zero (Centigrade).—RENE RAMBAULT in *Le Jardin*.

PLANTING TREES AND SHRUBS.

PREPARATION OF THE GROUND.

THE preparation of ground for the planting of trees or shrubbery is as much a matter for consideration as the question of when to plant or what to plant. Due importance is frequently not given to this fact. Trees and shrubs are often crowded into holes that are not large enough to permit even their roots being extended. Such planting generally is accompanied by a lack of subsequent cultivation, and the result is failure.

A proper preparation of the ground (when intended for mass planting) entails ploughing and subsoil ploughing, continued in cross directions until the ground is thoroughly broken up and reduced to a mellow condition. Should humus or organic matter be deficient in the soil, this should be corrected by a dressing of stable manure, peat,

or other organic matter. This treatment will ensure a condition of the soil which will make it hold moisture and assimilate fertilisers. In dry, sandy, or gravelly soils too much importance cannot be given to the value of surface mulching, or constant cultivation, after planting.

For single specimen trees, or for widely spaced trees, holes for planting should be prepared of not less than 15 feet square and 3½ feet deep. If the soil is good a simple loosening up, with an admixture of stable manure or peat, will be sufficient; if of sand or sterile gravel, and the best results are desired, it would be better to excavate the whole and substitute loam. "A silk purse cannot be made from a sow's ear," neither can a tree be grown to fine proportions unless the proper conditions are given.—J. A. PETTIGREW in *Bulletin New England Park Superintendents*.

THE INDOOR GARDEN.

THE TURK'S CAP OR POPE'S HEAD CACTUS.

(MELOCACTUS COMMUNIS.)

NOT uncommon in the West Indian Islands is this very remarkable Cactus; in some of the islands it grows in large quantities, covering tracts of dry, apparently barren soils with its conical, fleshy, spined stems, bearing long-sleeved red caps. The view here shown is in the small island of Barbuda, one of the group known as the Windward Islands, where this Cactus finds all it requires in shallow pockets of soil in the hard rock. Some of the plants shown must be of great age, judging by the rate of growth of cultivated examples, the largest, according to Sir Joseph Hooker, being two or three centuries old. Additional interest attaches to this species from its having been the first Cactus introduced into Europe, living plants of it being known in London in 1581. Its manner of growth is peculiar. The stem is at first globose, becoming cone shaped with age, and it consists of a mass of solid sappy flesh enclosed in a thick skin formed into ridges, on the edge of which are clusters of short, stout, sharp spines. On the summit of the stem, when old, there is developed a cushion-like growth of thickly matted white hair and crimson spines, nestling among which are the small fleshy tubular red flowers, generally succeeded by the red berry-like fruits containing seeds. In the first year this cushion is only about a quarter of an inch high, the next year half an inch, and so on. The largest plant I have seen in Europe was at Kew in 1897, its dimensions being: Height, 20 inches; diameter at base, 15 inches; number of ridges, twenty-two, with twenty starlike clusters of spines on each ridge; the "cap" measured 8 inches high by 5 inches in diameter; and the weight of the plant was about 1 cwt. There are several very good examples of this Cactus at Kew now. Large plants are difficult to establish in this country; Kew is, therefore, fortunate in being able to obtain a supply from the curator of the Botanic Garden at Antigua (Mr. W. N. Sands), to whom we are indebted for the photograph here shown.

W. W.

EARLY-FLOWERING BULBOUS PLANTS.

Among desirable bulbs and roots for forcing, and with the object of producing a regular supply of flowers from Christmas onwards, the various forms of Iris are most valuable. Their cultivation is easy, very little forcing is required, and the price is low. For a few pounds a collection of bulbs may be had which will produce a charming lot of flowers during the period named.

A gritty, sandy loam, with a little leaf-soil or old Mushroom bed manure and some silver sand spread about the bulbs or rhizomes suits them well. Iris reticulata and others of this section require only a cold frame and the protection of a mat in frosty weather to have them in bloom by Christmas; six to eight bulbs in a 5-inch pot will produce a charming pot of choice small flowers. These may be followed by *I. persica* Heldreichi and the Spanish Iris, which require but little forcing. They make more foliage, and the flowers are borne on stout, fairly long stems, which make them useful for cutting. The flowers are durable, and also stand for a long time after being cut. *Allium neapolitanum* is another bulbous plant worthy of more general cultivation. These may be potted three to five bulbs in a pot, and if placed in a cold frame and covered with fibre or fine ashes until root action is well established, then they may be removed to a light greenhouse and given a temperature of 45° to 50°. *Anemone coronaria*, *stellata*, and *fulgens* may be had in bloom during midwinter by planting the roots 2 inches to 3 inches apart in boxes filled with light rich soil, placing them in a cold frame until growth is well advanced, when they may be removed to a light position in a greenhouse, where they will produce a mass of useful flowers for cutting.

The Calochorti, beautiful as they are, are not yet in general favour. They may be grown in pots in light, sandy soil, and should be plunged 3 inches or 4 inches overhead in fine ashes, and during the winter be protected from damp by having a light supported on brick piers placed over them until growth commences, when they may be placed in a pit or cool house until they come into flower. One of the most useful for early spring is the early-flowering section of

Gladiolus, such varieties as *Blushing Bride*, *cardinalis*, *Colvillei*, *formosissima*, *insignis*, *Prince of Orange*, *Lucretia*, *Ne Plus Ultra*, &c. There should be potted five to seven bulbs in a 6-inch pot in light rich soil. The pots may be plunged in fine ashes on a sound dry bottom out of doors or in a

cold frame. As growth commences raise them out of the plunging material and gradually inure them to light. Then force them gently according to the time they are wanted. *Lachenalia pendula gigantea* is also a desirable bulbous plant for either pot or basket cultivation. This should be grown in a greenhouse and introduced to a little heat as growth progresses.

Fritillaries.—*Aurea*, *Meleagris*, *imperialis*, *kamschatka*, and *pubica* should also now be potted up, placing three to six bulbs in a pot in almost any ordinary soil. Treated similarly to the *Gladiolus* and other things named above they add variety and interest to the show houses or conservatory during the early months of the year. J. JACQUES.

SOME NEGLECTED PLANTS.

CLERODENDRON DISPARIFOLIUM.—This is rarely seen, yet well worth including in a collection of warm house plants. It grows 5 feet or 6 feet high, and at the ends of the shoots and upon short lateral growths also panicles of white faintly-scented flowers are produced, and make a pretty display. In the Water Lily house at Kew this *Clerodendron* is planted in a narrow border quite close to the side of the house, and there, with little soil and plenty of moisture, particularly in the atmosphere, it thrives well. It is a native of Malay.

Ipomœa digitata, in the same house, affords an excellent example of the luxuriant manner that tropical climbers will grow even in hot houses in this country, for it has almost encircled the Water Lily pond that occupies the centre of the house. During the summer and even well into the autumn flowers are never absent so continued is the succession, for the individual blooms do not last long. They are of a lilac-purple colour. The appearance of pillars in the stove would be much improved if covered with this *Ipomœa*, for besides the attractiveness of the flowers, the deeply divided leaves are handsome in themselves. The plant grows freely during the summer, and needs to be pruned hard in winter.



THE TURK'S CAP CACTUS IN THE WEST INDIES.

Sanchezia nobilis is well worth growing as a foliage plant; its chief value lies in the leaves, which are fairly large, green, and prettily striped with yellow. It grows to about the same size as a Croton, and, in fact, might well be made use of with Crotons, Dracenas, &c., for decorative purposes, although probably it would not withstand much exposure to cold and draughts. It is worthy to rank among the best ornamental foliage plants, even if always kept in the stove. The yellow tubular flowers are enclosed in reddish green bracts, and add not a little to the plant's attractiveness.

Ruellia macrantha, with rather large rose-coloured flowers, is comparatively rarely seen in gardens, yet it is a plant of considerable beauty. The flowers, which remind one a good deal of a single bloom in a Rhododendron truss, are of a very attractive colour, and being of good size at once attract attention. This *Ruellia* is of easy culture, and

cuttings inserted in the spring strike readily. A stove or intermediate house is necessary for the best results to be obtained.

Ipomœa rubro-cerulea. — Several notes have lately appeared in THE GARDEN about this beautiful climbing plant and its value out of doors in the south-west counties of England. From experience of it under glass I can only say that it is worthy of every encouragement. No hot house climber that I know has more lovely flowers. They are a rich, rather pale blue (sky blue would, perhaps, best describe them, if a sky such as one sees in the south of France or Italy would be understood), fading as they age to a reddish colour. They last but one day, but fully make up in beauty what they lack in persistence. A pillar or rafter covered with this *Ipomœa* in flower is a lovely sight, and one that to be appreciated must be seen. In the T range at Kew several plants are grown,

and at the present time are flowering well. Private gardeners might with great advantage introduce a few plants of *Ipomœa rubro-cerulea* into their hot houses, for one does not often see it outside botanic gardens. It is the case with this as with many more valuable and beautiful plants; if they were only better known they would be more widely grown.

Eranthemum Andersoni may also legitimately be classed among neglected plants. It does not make a striking display it is true, but its flowers are very pretty, freely produced, and make the plant a valuable one for decorative purposes. They are white, except for the lip, which is covered with purple spots, and are produced in small heads at the apex of the shoot. Like other *Eranthemum*, *E. Andersoni* is easily propagated by means of cuttings. It is, perhaps, hardly necessary to mention another *Eranthemum* (*E. pulchellum*), now known as *Dedalacanthus nervosus*, a most useful plant that bears blue flowers, and is especially valuable in late autumn and winter. It continues to flower throughout a long period; it may be easily increased by cuttings also. Old plants cut back and grown on again the following year produce a profusion of flowers.

Stigmaphyllon ciliatum. — This may be briefly described as a stove climbing plant, bearing *Oncidium*-like flowers. These are of a rich yellow colour, and in shape much resemble those of an *Oncidium*. It has the merit of flowering for many weeks. Brazil is the home of this climber, whose growth is rather slender. Careful watering is more necessary than with plants of a robust habit of growth. A. P. H.

GARDEN ORNAMENT.

LEADWORK.

(Continued from page 301.)

AS might be expected, in England, where marble is rare, and may not be exposed to our humid climate with impunity, leadwork for garden decoration soon began to be very popular, and there are still to be found in many old Caroline and early Georgian gardens admirable and exceedingly well-preserved leaden casts of renowned statues. Unfortunately, most of these statues were coated with white or cream-coloured paint, and even bedaubed in all the colours of the rainbow. Not many years ago I was surprised to find in an old garden in Norfolk that some large vases which looked as if they were made of terra-cotta turned out, on being scraped with a knife, to be in reality lead. There is no necessity for concealing this material, since nothing makes a finer effect against a background of that rich yet soft and varied green which is so peculiarly English than the dull silver grey of lead. Gray evidently admired our older sort of English garden, with its leaden statues and vases, for he says in one of his letters dated from Pembroke College, 1769: "How charming it must be to walk in one's own garden and sit on a bench in the open air with a fountain and a leaden statue, and a rolling stone and an arbour. Have a care, though, of sore throat and the ague" (*sic*). Throughout the last century leaden statues reigned supreme, not only in lordly gardens in the country, but in those of the metropolis, and to this day in the dilapidated gardens at the back of many old houses in Bloomsbury there may be found leaden statues and vases and some extremely large tanks. In the house No. 12, Buckingham Street, Strand, is a very handsome leaden tank of the time of Queen Anne, bearing the initials "A. R." and the date 1707.

The Dutch modeller Van Nost established himself towards the middle of the last century



LEADWORK: MERCURY AT MELBOURNE HALL, DERBY

in St. Martin's Lane as a lead statuary in succession to Mr. Cheere, who had served his time for many years with his brother, Sir H. Cheere, in the same business. It seems that both predecessor and successor did a very important business, and cast in lead figures, as large as life, which, Heaven forgive them! "they frequently painted to resemble Nature." Their stock included representations of Venus, Juno, Minerva, and the Apollo Belvedere, as well as Mr. Punch, Harlequin and Columbine, Moors, haymakers "resting on their rakes," gamekeepers, and Roman soldiers "with fire-locks." They seem, above all, to have done a specially brisk trade in the reproductions of a certain African slave upholding a sundial on his head, a specimen of which is still to be seen in the Temple Gardens. This particular statue appears to have been brought from Italy late in the seventeenth century by Holles, Lord Clare. I think, however, it will be found to be a cast of a bronze by Petro Tacca, the sculptor of the famous group of galley slaves in the Piazza at Leghorn, identical with it in every way, which I have seen in several Italian gardens, notably at Florence. It is quite evident that this African is an old stager, and a very admirable one, and it is a great pity some of our modern lead workers do not reproduce him, for he is highly decorative, looks admirable in the Temple Gardens, and would doubtless appear even more picturesque amid the sylvan surroundings of a country garden. Very delightful, too, are the pretty groups of Cupids at Melbourne, which, judging from their style, are apparently of French workmanship of the eighteenth century.

(To be continued.)

FLOWER GARDEN

THE ACONITUMS.

ENTIRELY confined to the Northern Hemisphere is this extensive genus, its species being chiefly European and Northern Asiatic, a few only being found in North America. The nomenclature is in a state of some confusion owing to the great number of names and various opinions of different authorities. While the "Genera Plantarum" gives eighteen as the number of species contained in the genus, the "Kew Index" recognises over sixty. Reichenbach, who made a critical study of the genus, described and figured about seventy species. Many of these, however, closely resemble each other in habit and form of flower, the specific

differences being founded on small characters which are not always constant. Seven is the number given as inhabiting the Himalayas in the "Flora of British India," but if critically revised on Reichenbach's lines the number from that region would probably be trebled. The genus is also well represented in China,

Mostly tall growing perennials of handsome appearance, some are inhabitants of woods, others are alpinists growing in mountain pastures, while some are found in moist, humid places as those in the Himalayas. Few flowers are more curiously formed than those of this genus. Their ornamental part is the calyx, which is divided into five sepals, the upper one of which forms a kind of helmet, supported by two large side sepals, while the other two, which are much smaller, hang down behind. Beneath the helmet are the petals, curiously folded up so as to form a kind of pouch at the upper end, while the other is drawn out into a kind of claw, these curiously formed petals being called nectaries.

The flowers are produced in paniced racemes of varying density and length, the colour ranging from blue to purple, pale yellow, and white. The leaves are variable, being finely divided into linear lobes in some species, whilst the leaves of others are almost entire. The roots are partly fleshy, generally forming small Radish-like tubers just below the surface of the ground. These tubers are poisonous in most of the different species.

Most Aconites grow with luxuriance in good rich soil, but this is not essential, as they are not at all particular, flourishing in the most indifferent soil. The stronger growing species and varieties are especially suitable for planting in open woods or for use in the herbaceous border, soon making strong clumps, which are very effective. By lifting the plants and separating the tubers in the late autumn after flowering, or in the spring, the former for preference, they may be rapidly increased, as also by seeds, which should be sown as soon as they are ripe. The following is a selection of some of the most distinct species in cultivation:—

A. Anthora (Wholesome Wolf's-bane).—Rather a dwarf species, with palmate leaves cut into linear lobes, and yellow flowers in a lax raceme. The upper sepal of the flowers of this plant is exactly in the shape of a helmet, having even a little peak in front like a traveller's cap. There are several varieties of this species, probably due to its wide distribution, which extends over Europe and Northern Asia. It flowers from June to August. Introduced before 1596.

A. barbatum (the Bearded Wolf's-bane).—In cultivation since 1807, this singular species has yellowish flowers, densely bearded at the lower part with long white hairs. The helmet is conical, forming a long, narrow pointed cap. It varies in height, according to the richness of the soil in which it grows, from 2 feet to 6 feet



ACONITUM WILSONI. (Natural size. From a drawing made at Kew.)

eight species being enumerated in the "Flora Sinensis," but since this was published other species have been found and described, considerably increasing the total. In North America only five species are found.

high. Known also as *A. squarrosus*, this species is a native of Siberia. July.

A. Carmichaelii.—This species is met with in cultivation under the name of *A. autumnale*, growing from 3 feet to 4 feet high, with dark blue-purple flowers in August. China.

A. chinense.—A very handsome species, known also under the names of *A. Fortunei* and *A. japonicum*. Its stout, branched stems attain a height of from 4 feet to 6 feet, bearing large compound racemes of intense bright blue flowers. The lower leaves are large, on moderately long, channelled petioles, deeply cut into three cuneate segments almost to the petiole, the upper leaves being almost sessile and gradually passing into more or less entire bracts amongst the upper flowers. A native of China, whence it was introduced in 1833. August.

A. columbianum.—Rather a weak-growing plant, 2 feet to 4 feet high, bearing lax, pubescent panicles of small, pale dull blue flowers, the helmet of which is higher than broad. Known also under the name of *A. nasutum*, this species inhabits moist ground from British Columbia to California and east to the Rocky Mountains.

A. heterophyllum.—This distinct and ornamental species is found on the lofty mountains of the Himalayas, 9,000 feet to 10,000 feet above sea level. It is remarkable for its leaves, the upper ones being sessile, cordate, with a toothed margin, and the lower ones on long petioles, deeply toothed, and sometimes slightly lobed. The flowers, which are disposed in a paniced raceme, are large and roundish, with a semi-circular, pubescent helmet. The entire leaves of this species are characteristic of all the Nepal species, two other closely allied ones being *A. ovatum* and *A. cordatum*. Introduced in 1840.

A. Lycoctonum (common Wolf's-bane).—A rather slender-growing plant, with stems 4 feet to 6 feet high, bearing pubescent, branching racemes of good-sized, livid violet flowers. The bottom of the helmet is cylindrical, with an elongated beak. A native of Europe, it flowers in July. 1596.

A. Napellus (common Monk's-hood).—Perhaps few plants are more common in gardens than this species in its various forms, its tall and vigorous habit of growth and its showy flowers making it a general favourite. Distributed over the Northern Hemisphere, it has been in cultivation for several centuries, and is frequently found wild in England, though these are probably escapes from gardens. There is a white variety of this species, and also one with variegated blue and white flowers.

A. orientale (pale yellow Wolf's-bane).—Closely allied to *A. Lycoctonum* and *A. vulparia*, this hardy perennial is a native of the mountain pastures of the Caucasus, flowering in July and August. It is sometimes met with in a wild state, having white flowers. Also known as *A. ochroleucum*. 1794.

A. paniculatum.—A very pretty species from the lightness of its elevated helmet, its hairy or pubescent panicles of large violet flowers and flexuous stems 2 feet to 3 feet high. Flowering in August, it is a native of the European Alps, and was introduced in 1800. A closely allied species is *A. cernuum*.

A. reclinatum.—An inhabitant of wet woods on mountain sides in the Alleghanies, with stems 2 feet to 3 feet high and loose, leafy, rather few-flowered panicles of dull white or yellowish flowers varying to purple.

A. rostratum (the Beaked Monk's-hood).—A very distinct and pretty species, known by its elongated, compressed helmet. Flowering in July and August, it only gets from 2 feet to

3 feet high, producing its numerous violet-coloured flowers in a spreading panicle; a native of the Alps of Central Europe, it has been in cultivation since 1752; variable in the colour of its flowers—there is a pure white variety, and another one white, slightly tinged with violet or blue.

A. stierckianum.—A very showy plant, which produces its large purple-shaded flowers in August. When grown in good soil it attains to a height of 4 feet to 5 feet. It is a native of Austria, whence it was introduced in 1820. *A. s. var. bicolor* is a native of Switzerland, with blue and white flowers.

A. uncinatum.—A handsome tall-growing species, with panicles of large deep purple flowers. It is the best and most showy of the American species. The broad, lobed leaves are firm in texture, and the flowers are borne on loose panicles, with diverging branches. The hood of the flower is half an inch high and strongly saccate. It grows in moist ground along the mountains from Georgia to Pennsylvania, and flowers in late summer.

A. variegatum.—A very elegant little plant, varying in its different forms from 1 foot to 6 feet in height. The typical plant grows about 2 feet, having flowers variegated blue and white. There is a form with white flowers. Native of the Alps of Central Europe; it was introduced in 1597.

A. volubile.—A Siberian species, distinct on account of its twining stem, a character not at all common in this genus. The flowers are blue, with a sub-conical helmet, the boles of the leaves being pinnate, with linear lobes.

A. Vulparia.—Somewhat similar to *A. Lycoctonum* in form of flower but not in colour. It is sometimes met with under the latter name. The pale yellow flowers are produced in crowded racemes on stems 1 foot to 3 feet high. The helmet of the flower is cylindrical, with a stretched-out beak. A native of Europe; it was introduced in 1821. There are several well-marked forms of this species, two of the most distinct being *A. V. carpaticum*, with flowers of a lurid colour sometimes variegated with yellow, from the Carpathian Mountains; and *A. V. moldavica*, with violet flowers, from Moldavia.

A. Wilsoni, the subject of the illustration, is one of the finest of all the late-flowering kinds. It is a tall, handsome, erect-growing plant, commencing to flower in the beginning of September. After the terminal raceme is over branches are produced lower down the stem, extending the flowering season till the end of October; well known by the name of *A. Fischeri*, under which it is figured in the *Botanical Magazine*; this plant is also met with as *A. autumnale* and *A. californicum*. When collecting in China Messrs. James Veitch and Sons' collector, Mr. H. Wilson, found this plant and sent it home. Flowering at Coombe Wood nursery in 1902, it proved to be identical with the plant figured in the *Botanical Magazine* as *Fischeri*. *A. Fischeri*, however, as figured by Reichenbach is a different plant, so a new name was necessary for this, the name adopted being *Wilsoni*, after the finder; flowers violet in colour on stems 5 feet to 6 feet high.

Keew.

W. IRVING.

AN HOUR WITH THE HOLLYHOCK.

(Continued from page 299.)

In preparing the ground for planting, it should be dug two-spit deep. Where spring planting is intended, throw up the earth in ridges in autumn, that it may become mellowed by the winter's frost. In all cases this practice is bene-

ficial, but it is especially so where the soil is of close texture or retentive of moisture. A good dressing of manure, not too far decomposed, may be strewn over the soil previous to ridging, and mixed in during the operation. One advantage of this is, the manure will keep the clods light and give the sun and air a free entry; and, further, the soil will become more evenly impregnated with the nutritious properties of the manure as they are washed down by the rain. One point, when planting of too great importance to be overlooked, is the state of the ground. To use a common gardening phrase, the earth should "move like an ash-heap" at the time this work is done; rather would we wait a fortnight beyond the most advantageous season than plant when the ground is wet or clammy. The plants should be set firmly in the ground 3 feet apart, not too low, pressing the soil well round the neck with the hands or by a gentle stroke of the foot. This done watering must be attended to if the season be dry, using weak liquid manure, breaking the surface of the ground with a hoe the day after the water is given. Frequent loosening of the surface of the soil is indeed an important part of culture, and should be attended to throughout the whole of the growing season.

Autumn planting is very good for hardy free-growing sorts, provided the plants are sufficiently strong to be planted out early in October; otherwise we should advise their being kept in pots under glass during winter, and transferred to their permanent places early in May. Vigorous healthy plants of hardy sorts, when well established, seldom suffer much from the frost of winter when growing in the open air provided the soil be well drained; but where the sorts are delicate, the plants feeble, or not well rooted, it is far otherwise. We know an instance of an amateur losing nearly one-half of his stock during winter, the plants being in the condition last described. In all cases it is a wise precaution to earth up the plants remaining in the ground at the close of autumn, that the rain may not settle around them; and if a few small hand-glasses can be spared to shelter any rare or delicate kinds so much the better. Bloomed seedlings are almost invariably strong, and may be transferred to a permanent situation in the garden immediately that the flowering is over; other seedlings, whether raised in autumn or spring, should never be planted out until the end of April or early in May.

When transplanting is done in autumn, the plants should be guarded during the first winter against the injurious effects that may arise from changes of the weather. When a sudden thaw succeeds frost it is no uncommon thing to find the plants upheaved, and their roots partially exposed. It may sometimes be advisable to replant them; but in most cases the necessary end may be attained by drawing the soil around them when dry and pressing them gently back with the foot.

It is worthy of remark that the season of flowering may be greatly prolonged by striking and transplanting at different seasons. There is a great difference in the period of flowering between plants removed early in autumn and late in spring; and of this we may avail ourselves to lengthen the succession or to obtain a full bloom early or late, as particular circumstances may require. Early-rooted cuttings and old plants may be induced to bloom in July, and late-rooted cuttings and spring-grown seedlings in November. Hence there will be no difficulty in obtaining a supply of flowers for four successive months. This is a feature in the Hollyhock well worth noticing.

As is well known, many of our noble mansions are little visited by their proprietors except in the autumn and winter months, and every effort is required to make the garden as attractive as possible at those seasons. In such cases the Hollyhock is an indispensable flower, and should be planted in masses of colour, especially in those situations where seen from the principal walks or windows of the mansion.

Every flower has its enemies. The Dahlia has to battle with the thrip and earwig; the Pink and Carnation require protection from the wire-worm; the enemies of the Rose are "legion," and the Hollyhock suffers from the slug. It is in winter and early spring that these creatures feast on the leaves with most relish; and as a preference is shown to the youngest the loss is all the greater, for they are most actively engaged in administering to the wants of the plants. Happily for us our enemy is not remarkable for agility. Slug-traps are numerous and well known to all who

protection. For this purpose an inverted flower pot answers admirably. It may be placed over the plant in the evening, and removed again with the rising of the sun. It should be borne in mind at this stage of culture that the Hollyhock is a lover of moisture, and water should be given abundantly, especially during dry weather.

WILLIAM PAUL, F.L.S.
(To be continued.)

THE FRUIT GARDEN.

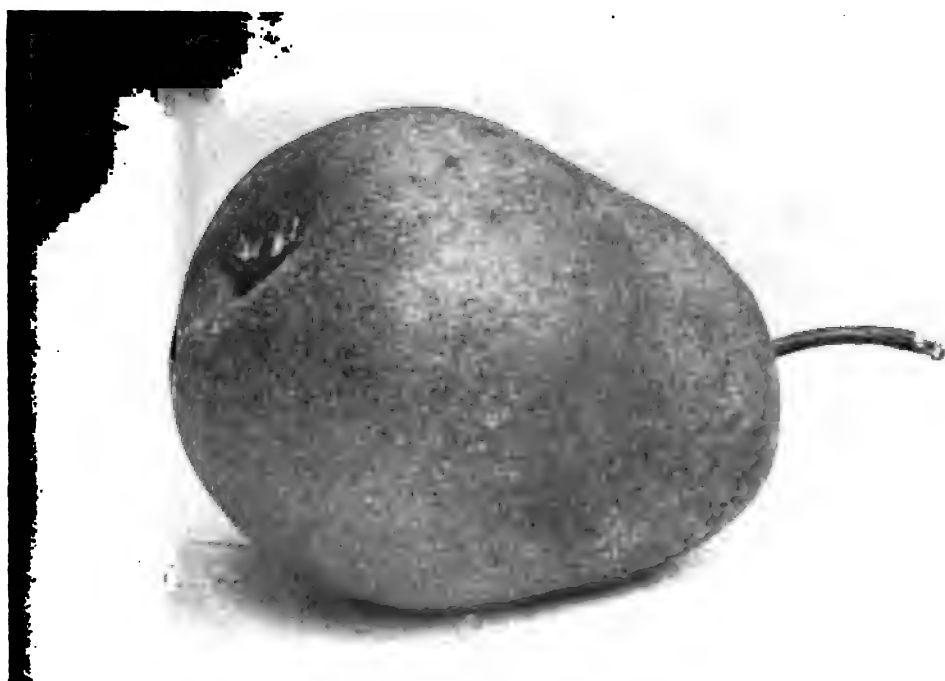
HARDY FRUITS IN SEASON.

PEAR MARECHAL DE LA COUR.

UNDER the name of Conseiller de la Cour this Pear is equally well known. Although it has been grown in this country for at least half a century I do not think its merits have ever been fully recognised by fruit growers. In the southern counties I consider this variety one of

season a month earlier or later than those from the other. It is always a temptation to plant the finest Apples that can be got—though there is pretty great diversity of opinion as to which are the finest—but, as stated above, the very finest sorts, like the most beautiful strains of certain flowers, need a deal of culture, and unless one has very favourable conditions indeed for Apple culture, and is prepared to give them a good deal of personal attention, or to commit them to the attention of a skilled gardener, it is better to be contented with good and well-tried sorts that are hardy and prolific. It does not always pay to buy the newest Apples, for every Apple at its introduction is very much puffed, especially by the nurseryman introducing it, and it very often does not justify afterwards the encomiums bestowed upon it. As an instance, I may mention that I happen to live in the district where the Queen Apple was introduced. It was much talked of, and everybody in the district who was planting Apples then planted one or more trees of it, and though it is one of the most delicately beautiful Apples on the exhibition table, I imagine few of those who have the tree would plant it if they had their time over again. Certainly I should not do so, but my tree has been planted twelve years, and I do not care to do away with it. Before buying trees it is advisable to go to an autumn fruit show, where much may often be learned. For instance, there is a great deal in the weight of Apples, and though this is not of so much importance in the case of dessert Apples, yet it is not without significance, as a heavy Apple means firmness of texture and juiciness, while a light one means woolliness or pithiness. But with cooking Apples it is of much importance. We have all heard the remark upon cutting into an Apple pie, "How these Apples have gone down!" When this takes place to an exceptional degree, it is because the Apples are of a light texture, whereas when Apples of a good solid texture are used the fruit sinks much less, and there is much more juice. At the Chiswick fruit show of the Royal Horticultural Society last September I was looking at a dish of Striped Beaufins, and upon lifting one was struck by its great weight. I lifted a Warner's King of about equal size, perhaps larger, and found it weighed appreciably less. The difference in weight in a bushel of each of these must be several pounds. I remarked upon the fact to a grower, and he said it did not want a very big Striped Beaufin to weigh a pound, and I could well believe him. This is one of the things that make some cooking Apples so much more valuable than others that will keep just as well, but do not weigh so much, and consequently do not go so far nor yield so much juice when cooked.

Another thing to be looked to in choosing cooking Apples is their shape. Everyone knows how much easier it is to peel an Apple that is perfectly round, with only a small cavity for the eye, than it is an irregularly shaped one. Some cooking Apples, notably Lord Derby, are very angular and have a deep and wide depression at the eye. In peeling such an Apple there must be a deal of waste both of the Apple and of time, whereas with such Apples as Golden Noble or Lane's Prince Albert there is no inequality of surface, and with the former, especially the whole of the peel, including the eye, may be removed before the Apple is cut open. My visit to the Royal Horticultural Society's show impressed me with another fact, and that was that no nurseryman can grow every Apple well, as there are bound to be some which are not adapted to his soil. The poor specimens of some Apples there were almost unrecognisable on account of their smallness, want of colour, and bad shape. There were Queens no bigger than Scarlet Nonpareils, Sturmer Pippins no bigger than Crab, and Marie Louise and Louise Bonne of Jersey Pears no bigger than Winter Nellie. In this respect there must always be some uncertainty as to how the Apple trees we choose will succeed, it being somewhat unlikely that every one, even of a dozen different sorts, will succeed



PEAR MARECHAL DE LA COUR. (Slight reduction.)

possess a garden. A pair of keen eyes, aided by a bright light in the morning or evening during moist weather, proves a most effective method of checking their ravages. A less troublesome one is perhaps to strew a few Cabbage leaves around the plants. Beneath these the little creatures take refuge, and may be easily caught and destroyed. Some are exceedingly minute, and to guard against them it is well to strew lime, wood-ashes, or soot around the plants.

Fogging of the leaves in winter is very prevalent among Hollyhocks. The plant is then in a state of comparative rest; the leaves are very apt to decay, and if they are not speedily removed the contagion spreads. As a preventive of this evil the frame should be set in a sunny place, and too much air can scarcely be given, provided moisture and severe frost be excluded.

As frost is not unusual in the months of April and May—the time we recommend for spring planting—the plants which have been brought from a frame will still require some

our best early November Pears, and though of course it cannot compete with Doyenné du Comice as regards flavour, it is excellent when well grown. Many like its sub-acid flavour. The fruits are very handsome when gathered from wall trees, but I find our best flavoured fruits are those grown on pyramid trees in a well-drained soil. The late Mr. Blackmore thought this one of the finest Pears grown. For heavy land I do not recommend it; the tree is hardy and a good grower. On a chalk soil it does well as a standard if grown on the Quince stock, and is much valued as a market variety during early November. S. W.

CHOOSING APPLE TREES.

(Continued from page 319.)

HAVING decided upon the form of the tree it is intended to purchase, and the time of the year the fruit should be in season, there are still several other things to be thought of. As regards the season the catalogues are, as a rule, sufficiently helpful, though if the same Apple is grown in two different soils in the same year in the same part of the country—for adjacent fields sometimes differ as to soil—the Apples from the one may be in

perfectly. One safe rule to follow is never to plant an Apple which you find is a failure with some of your neighbours under fair treatment. Conversely, if you find a particular Apple which is good enough to satisfy your requirements growing and bearing splendidly in your neighbour's garden, include that in your collection. ALGER PETTS.

(To be continued.)

NURSERY GARDENS.

CHRYSANTHEMUMS AT SWANLEY.

MESSRS. HENRY CANNELL AND SONS have, in accordance with their usual custom at this season of the year, an excellent display of novelties gathered together from all parts of the globe—English, Colonial, and Continental varieties—from raisers whose names have long since become famous in the annals of the popular autumn favourite.

Taken as a whole, the Swanley collection is a magnificent object-lesson in the art of effective and artistic arrangement, and the large span-roofed greenhouse in which this cosmopolitan display is set up has seldom or never been surpassed.

It is obvious that anything like a detailed description of everything that is newest and best is quite beyond the space at our command, and so we shall be compelled to confine our observations to very narrow limits. A brief general survey of the whole is all that can be attempted, and on this line we will deal firstly with the season's novelties received from Continental sources. These are principally seedlings from M. Ernest Calvat and M. Aug. Nonin.

One of the noblest is unquestionably Etienne Bonfond, a huge Japanese incurved, very deep in build, and having grooved florets of a fine deep golden yellow, tinted purple. Mlle. Alb. Bertrand is another monster, very deeply built, and of the same kind of colour as the old-time favourite James Salter. Mme. Henri Douillet is a worthy companion to the others, a fine Japanese incurving bloom, very close and compact, and of a beautiful shade of rosy amaranth with a silvery reverse. Henri Second is big, deep, and globular, crimson and gold in colour, with sharply-pointed lips. Very attractive from the show-board point of view is M. H. Martignier, a closely reflexing Japanese, very solid and substantial in build, colour deep golden yellow, shaded pale chestnut. In soft pale delicate shades we know of few things likely to surpass the new Mlle. Marthe Morel. Then Lohengrin has long drooping florets forming a most deeply built flower, and of a striking shade of orange yellow, tinted reddish chestnut. In Jean Calvat, the eminent French raiser gives us ample proof of his continued ability to supply us with colossal show flowers. This is a massive globular bloom, with florets of medium width, pointed at the tips, and reflexing. The colour is deep orange yellow, shaded carmine. Among others we can only mention Emile Loubet, a new white; Phédre, Souvenir de Calvat père, and Chrysanthémiste Choulet, as being very promising and worthy of further attention.

Of course there are many other examples of this great raiser's cultural skill, although not of so recent date as those just referred to; but these have the merit of another season's trial, and we think Mme. L. Chevrant, Princesses Bessaraba de Brancovan, Mme. Paolo Radaelli, Mme. Waldeck-Rousseau, Mme. C. Nagelmackers, and others may safely be pronounced upon as well worthy of our growers' attention.

Colonials have always been a strong feature in Messrs. Cannell's autumn show. Lord Hopetoun, a brilliant crimson Japanese, with a gold reverse, is most dazzling and effective; Camden, a fine pale lilac rose; Mrs. A. G. Hubbuck, rosy flesh, deep and compact, is also a fine addition from Antipodean sources; Daniel Lambert, so far not particularly justifying its name in size, a silvery white, tinted purple, but which is said to be one of the biggest; Mrs. T. W. Pockett, already well known; W. R. Church, rich and fine in its peculiar shade

of purplish crimson; Mr. James Marshall is another Australian of high merit, a big substantial bloom of pale rosy amaranth, reverse silvery, and many more beside.

From miscellaneous sources we must not omit the new Miss Mildred Ware; in size this is decidedly a rival to some of the big drooping petalled Japanese, but it certainly lacks the beauty and refinement of a Lady Hanham. A few good yellows are General Hutton, very large; John Fraser, almost a yellow counterpart of Mme. Gustave Henry, which it resembles very closely in build; General Buller, Britannia, Mrs. Harry Emmerton, and F. J. Taggart, a hairy variety of a distinctly pale lemon yellow tone.

Rosy pinks and salmon minglings of colour in varying shades are seen in some pretty examples of Mrs. G. Mileham, Mrs. Coombes, Mrs. Rumble, Byron, and Lady Hanham, while many of the good standard crimsons are effectively used for brightening up the collection. In this shade S. T. Wright is particularly noteworthy. Godfrey's Masterpiece is also an excellent variety in this colour.

Round the sides of the house are various new seedling singles, decorative and other sorts, the whole forming one of the finest displays we have seen for a long time past.

MESSRS. PEED AND SON, WEST NORWOOD.

CHRYSANTHEMUMS are a new feature here, this being the first season they have been grown for exhibition blooms. The exhibits at the National Chrysanthemum Society's show at the Crystal Palace on the 6th and 7th ult., and again at the Drill Hall on the 13th ult., induced me to pay a visit to the nursery to see what was being done there. I found that though the stock was not so large as in some nurseries, it was in fine condition, and Messrs. Peed are undoubtedly on the way to further success. I was told that it was rather late in the season when they first entertained the idea of growing Chrysanthemums for exhibiting, nevertheless they have done very well. Their stock would consist of some 800 to 1,000 plants, and almost all of them are producing good blooms with clean, healthy foliage, which appeared to be quite free from rust and other disease. It was also noticeable that up to the present the blooms showed no sign of "damping." The grower (Mr. Gover) told me that he kept up just sufficient fire-heat to ensure a good circulation and plenty of top air night and day. This is evidently the secret of preventing what appears to be one of the greatest troubles to growers of Chrysanthemums this season, though perhaps other cultural details may also have some influence.

Among the varieties noted the most promising were: Lord Alverstone, deep crimson, with a bronzy yellow reverse; Lord Hopetoun, another fine crimson; Miss Olive Miller, clear mauve-pink, long, drooping florets, fine blooms on dwarf plants; Mrs. C. M. Paige, long, narrow, drooping florets, pure white on first bud, but later flowers have a pink shade; Godfrey's Masterpiece, bright red tipped, shaded golden yellow; S. T. Wright, rich crimson; Captain Percy Scott, a very fine yellow; Mrs. Greenfield, another good yellow; Miss N. Pockett, very fine white; Charles Langley, crimson, with a shading of purple, very distinct in shade of colour and fine bloom; Miss Lucy Evans, pink, with shade of mauve, slight yellow shade on young florets; Mrs. J. R. Thornecroft, very large blooms of a bronzy orange shade; Le Grand Dragon was also good; Miss Stopford, white, large flowers, with long, drooping florets; Countess Arran, fine pink; Lord Ludlow was good; Britannia, a promising yellow; and Mildred Ware, which promises to make a very fine flower.

Of other subjects worthy of note the winter-flowering Begonias Gloire de Lorraine, Mrs. Leopold de Rothschild, Turnford Hall, Winter Cheer, Ensign, and others were all in good condition. Gloxinias were excellent for the season, and the strain is good. The Caladiums, for which this firm is so well known, were in the last stage of ripening off, and represented a large stock of plants. A house full of the best varieties of Cyrtipedium

insigne were just coming into flower. On the roof of one house a fine plant of Schubertia grandiflora was flowering freely. The tuberous Begonias were past their best, but the strain of both double and single varieties is very fine. V.

NOTES FROM WALTHAM CROSS.

WE made a few notes of Roses in beauty at Waltham Cross in early October.

Field Marshal.—We saw this splendid new climber very fine under glass. The flowers are a vivid in colour as the monthly Rose Cramoisi Superieure, but they are as full and as large as a Hybrid Perpetual. The elegantly recurved petals and globular high centred form appeared to us a most attractive feature in this new climber, and we should say it will be most useful as a fast growing companion to Maréchal Niel, either under glass or on south walls. Some of the plants in pots had made a growth this year of fully 15 feet in length. Another fine novelty in free-growing Roses is

Golden Queen.—This has all the characteristic attributes of Réve d'Or, such as abundant foliage, growth well branched right from the base, and the flower colour of a deeper golden yellow. We thought the petals larger than those of Réve d'Or. When well established this Rose must prove a great acquisition, rich golden yellows such as this being very rare. A remarkable floriferous Rose is

Floribunda, apparently a hybrid Noisette, somewhat resembling the Polyantha Roses in its abundant blossoming, but the individual flowers are fairly large and very perfectly formed. The colour is delicate rosy flesh, with a yellowish shading. We believe this Rose will be of great usefulness for massing and for forming low hedges. Even when the flowers are absent the plants are cheerful to look at owing to their glistening foliage.

Corona is evidently a descendant of that grand Waltham Cross Rose White Lady. Some hundreds of plants, as seen early in October, were making a good second crop of the beautifully formed flowers, and, judging from the numbers of old blossoms upon the plants, they had evidently been very showy in July. The wax-like appearance of the flower, and the pretty pointed form of the outer petals, combined with a substance as remarkable as is found in Tennyson, points to Corona as a Rose of much usefulness. The colour is of a deeper hue than Tennyson or White Lady, being almost flesh pink in the centre, shading to creamy pink on the outer petals. There is the same uniform growth which we find in White Lady, and the success of this latter as a decorative Rose, where an extra vigorous kind is not required, augurs well for the future of Corona. We saw a fine novelty named

Earl of Warwick, which, we understand, is to be put into commerce next May. This Rose was recently alluded to in these columns, and we can thoroughly endorse all that our correspondent Mr. Molyneux has said about it. In colouring it seems to be a blending of the beautiful tints found in Mme. Eugénie Bouliet and Mme. Abel Chateaux, but there is certainly a distinct salmon-pink hue which we cannot recall in any other variety. Another attractive novelty named

E. T. Cook was in fine condition, and, judging from its neat and compact growth and beautiful corymbs of blossom, we have a decorative variety of much value. The colour in the young state is a beautiful shell-pink, merging to fawn and white as the flowers expand. It is a cross between Mme. Cadeau Ramey and Antoine Rivoire, and apparently partakes largely of the characteristics of both well-known varieties. One remarkable trait in this Rose is the fine corymbs of blossom the plant produces, and each flower expands almost simultaneously, so that a highly decorative effect is produced.

Arethusa is the first clear deep yellow Monthly Rose yet obtained. It is as profuse in flowering as Queen Mab, the habit of growth and size of blossom being very similar. We were very pleased with a pretty decorative Hybrid Tea named

Elizabeth Kitto, and we feel sure it must prove a valuable bedding Rose. It is of a very neat,

compact habit, every flower well displayed on stiff shoots, and the colour is of that lovely salmon-pink hue so much admired in Mme. Abel Chatenay. A fine novelty is the almost pure white Hybrid Tea.

Irene. — Apparently this Rose is even more vigorous than Caroline Testout, from which, we believe, it was raised, this latter being crossed with Mme. Jules Finger. It is larger and more double than Caroline Testout, and of a beautiful ivory-white. From plants we saw in bloom we believe this Rose will far surpass such sorts as Admiral Dewey, the bloom being nearer the exhibition standard.

Other Waltham Cross novelties were flowering freely, very conspicuous being the brilliant orange-crimson Morning Glow, the charming little primrose-yellow Dainty, and the variable coloured Chameleon, which promises to be a good bedding kind. Of older varieties, Corallina was well to the front. We believe this Rose has again given the utmost satisfaction even during a season such as we have experienced, and the delightful pale yellow Sulphurea is a peerless gem among Roses of this colour.

Of the newer Roses from other raisers I much liked Mme. Antoine Mari, Mme. Jean Dupuy, Prince de Bulgarie, Pharisuer, Pauline Bersez, Prefet Montell, Souvenir de Pierre Notting, Mme. Vermorel, Dr. Felix Guyon, and La Tosca.

VISITOR.

THE KITCHEN GARDEN.

THE CUSTARD MARROWS.

A NEW TYPE.

I THINK the Custard Marrow can be grown to better advantage than is often the case, and owing to its size in comparison to the larger variety it is at times overlooked. The ordinary Marrows are, however, stronger in growth, and probably give a better return in the market. But mere size in vegetables is not everything when quality is absent. The Custard Marrow is certainly worth more attention for home supplies, in spite of its drawbacks, such as tenderness and a short season. It likes warmth and moisture combined. This year has not proved an ideal one, and some new seedlings, some of which the Editor of THE GARDEN is good enough to illustrate, have not had so good a chance as I should have liked. I heard it stated the other day that we had so many vegetables that it was a mistake to add more. Such a foolish remark does not for one moment deter those whose idea is quality in comparison to mere size. In this country I contend we do not make enough of our vegetables. Take Spinach, for instance. How often is this used by the working classes? But, given care in cooking, it is one of the most wholesome vegetables grown. I must now consider the value of the Custard Marrow for use from May to November, or what may be termed a six months' supply, if frame culture can be given at the start.

There are not many varieties, and in the whole family about a dozen sorts will embrace both the Long White, the Oval Cream, and round or globular fruits, and the Bush and Custard varieties of the latter. There are very few, and they are worth growing, as they are quite different from the ordinary Marrow; the flesh is less watery and the flavour more delicate.



GROUP OF NEW CUSTARD MARROWS.

In crossing to get new sorts it is well known that some of the crosses are of no value, and soon abandoned if not superior or even equal to one of the parents. In the new varieties illustrated I do not claim that they are all better. I like the Oval and Pear-shaped best. The Long Custard, though the quality is good, I have so far failed to seed, and I include it with the others just to show variation.

I much regret that it is seedless, as the quality is good. It has one excellent point, and that is it does not age so soon as the old Custard or the others, but, on the other hand, it is much larger, and in a Custard I do not think this is any gain. It was raised from the same cross as the new Oval, but the parentage reversed. The parents here were the White Bush with Sutton's Improved Custard. The latter is a trailing Marrow, and one of the best of the Custard family. The Oval fruit noted above was the result of crossing as described, and here I think there is an advantage. The fruits when cooked are of excellent quality, and they are very shapely and prolific. In the Pear-shaped variety there is, perhaps, less variation than in the others, as this is more like the older Custard; but there is an absence of the warty excrescence at the sides. It is of excellent quality, and is, I consider, a gain in the right direction, as when cooked in a young state the flavour is delicious. This was obtained by crossing the old Custard with another variety, and it is more prolific than the parent. I now come to the

OLDER KINDS.

There are few of these, but it would be difficult to surpass any for crop or quality. It is large enough for all purposes, and that is one of the plants referred to earlier, viz., Sutton's Improved Custard. This is excellent in every way, and as regards quality far in advance of the ordinary Marrow. It has a trailing habit, and is very prolific; it fruits at all the joints, and these are quite short, and owing to this the plant is very productive; the fruits when cooked young are, in my opinion, delicious. I do not consider the old Custard can approach the last named either for quality or crop. I do not know if any of my readers

have ever compared in flavour the Bush Cluster or Chusan Marrows, as they are called, with the ordinary long Marrows. The Bush, when cooked small, is well worth room in all gardens; they are also well adapted for small gardens where space is limited, as they do not trail, and being of such compact growth the fruits are formed close to the stem.

There must be glass culture at the start to get so long a supply as has been mentioned. We certainly cut a few fruits at the end of May from seed sown in March and given frame culture, but the Custard Marrows do not take kindly to frame culture after the plants have got a good start, as unless given ample ventilation the flowers do not set well and time is lost. I noticed this year that as soon as we gave our plants full exposure they cropped well, and the same plants in a favourable autumn, that is, with a sunny dry October, will give fruits to the end of the month.

As the plant is tender there is a great gain by giving frame protection or shelter from hand-glasses at the start. If a little warmth from stable manure can be afforded there will be earlier fruits, but give ample ventilation later on to secure a sturdy growth. I find we get the best results from raised beds, as in wet seasons the plants get dry more quickly, and not so much manure is needed as is often given, but good loamy soil and ample room. The Sutton Improved Custard is a strong grower needing much space. I have seen the Custard Marrows put to good use as climbers over screens or hedges, and also for growing on a trellis.

G. WYTHES.

GARDENING OF THE WEEK.

INDOOR GARDEN.

CAMELLIAS,

WHETHER growing in pots or tubs or planted out in borders, require close attention to be paid to the watering at this time of the year. Any tendency to dryness of the soil in which the roots are growing will be followed by the dropping of a large proportion of the flower-buds. It is

equally as important to see that the plants do not suffer through imperfect drainage; large pots or tubs in which Canellias are growing should be raised an inch or so above the floor level by three small blocks of wood placed under the bottom rim of each. The plants should now be given light applications of manure water made from cow manure and soot. Where there is no tendency to bud dropping it will be necessary to thin them, performing the operation gradually; this will benefit the plants as well as improve the quality of the flowers. Old plants of

CYCLAMEN PERSICUM

may now be cleaned over, also have their pots washed, and be given a top-dressing of light, rich soil, in which a little Clay's Fertilizer has been mixed. This should be made firmly with a blunt-ended stick; then place the plants in a light position, with a night temperature of 45° to 50°. They will soon begin to grow and may be had in bloom early in the new year. Young plants from seed last season must be kept steadily growing through the winter and they will produce a few good flowers in the spring.

CINERARIA STELLATA,

now in 6-inch or 7-inch pots, should be placed in a cool house near the glass and allowed full light, shading them only from the brightest sun. As the flower-stems progress give the plants weak liquid manure once or twice a week. These and Calceolarias are somewhat soft this season, in consequence of the saturated condition of the atmosphere for so long a period. Therefore give air as freely as the weather will admit. Late successional plants should be potted on as soon as ready, and at the same time remove all damped or decaying foliage.

THE EARLY BULBS,

such as Roman Hyacinths, Paper White Narcissus, &c., will require to be looked over occasionally, as to allow them to remain too long in the material in which they were plunged when potted will result in permanent injury. Therefore, as the young growth reaches 1 inch to 2 inches in length remove them to a cold pit or frame, where protection can be given as required.

ROSES IN POTS.

Where a large stock of these is grown, particularly of the Tea and Noisette varieties, good flowers may be cut for a considerable time by placing a number of plants in a cool house where frost can be excluded. A vinery or Peach house, where most of the foliage has fallen, would be suitable. In such a position many buds now in various stages of development would open.

Plants intended for forcing should now be pruned. For the earliest batch select such plants as have been forced during one or two previous seasons; prune out all the weak shoots entirely, and even strong ones if the plants have become too thick; shorten the remaining shoots by about one-third. In cases where the wood is vigorous and well ripened the weak points only need be removed.

Wendover.

J. JAQUES.

KITCHEN GARDEN.

GLOBE ARTICHOKE.

THERE should be no further delay in affording the plants protection. Bracken is an excellent material; it should be packed thickly round the stools, and some should be worked about the crowns in the centre with the hand, but they must not be covered entirely, as when the material becomes wet it will cause decay in the heart of the plants. As advised in a previous calendar some plants taken from the outside of the old stools should be lifted, potted up, and wintered in a cold house or pit.

SEAKALE.

This vegetable requires but little room in which to force it; large pots, tubs, or bins with lids to exclude air and light are utilised, all of these may be recommended as suitable. Heat must be applied in moderation, especially in the early part of the winter, or the produce will be spindling and flavourless. The crowns should be plunged in tan or similar material, and this should be replenished

every year. The bottom-heat should range from 50° to 55°, and the temperature of the structure should be kept at about 60° to 65°, with abundance of humidity. Seakale that is to be forced requires rest, and until this has been adequately afforded the produce from the forced crowns will not be first-class, therefore it will be obvious that as the winter advances the results will become more satisfactory. The better grown and matured the crowns at lifting time the finer heads may be expected when forced. Introduce a few crowns every few days in order to maintain an unbroken supply so far as is necessary. As soon as the leafage has decayed the whole of the crowns should be lifted. The thongs taken from the sides of the plant are utilised for sets for another year, and these make excellent plants. They should be broken off as lifting proceeds and laid on one side, afterwards breaking them up into 3-inch lengths, selecting those of about the thickness of one's forefinger. These may be bedded in thickly in rows in any spare piece of ground. The thickest end of the thong should be uppermost, as this will form the top or crown of the future plant. The crowns for this winter's forcing may be laid in rows and just covered with soil for use as required. On the approach of severe weather some litter must be laid over them for protection. When plunging the plants in the tan let the crowns protrude an inch or two and keep quite close and dark.

MUSHROOMS.

In gardens where a constant and plentiful supply has to be maintained a bed should be made as frequently as material can be obtained and room afforded. Much fire-heat is harmful as it tends to dry up the moisture in the house which is so essential to success in growing good fleshy Mushrooms and for prolonging the cutting. A slight warmth in the pipes at night will, however, hasten the production of the Mushrooms, and if the beds be covered with sweet hay, with the seeds shaken out, the surface will not become unduly dry.

H. T. MARTIN.

Stoneleigh Abbey Gardens.

FRUIT GARDEN.

VINES.

As soon as the leaves are down, Vines infested with insects must be made thoroughly clean. Stop all suspicious holes and cracks with pure Gishurst, and paint with a solution of the same, 8 ounces to the gallon of water, thickened to the consistency of cream with sifted loam. On the other hand, Vines which have not been infested with insects may be passed over with a good washing, as nothing is gained by dressing where there is nothing for the dressing to destroy. Of all the insects the Grape grower has to contend with the mealy bug is most to be dreaded. Spirits and oils of various kinds have been used, and all of them kill where they touch; but it generally happens that some escape, and the only way in which they can be successfully exterminated is by careful watching and searching in the spring, and dressing with Gishurst compound or methylated spirits of wine.

LATE HOUSES.

If the laterals and extension growths have not been removed, take them off at once, as they hold moisture and keep the sap in motion. Remove the ripe foliage as it parts freely to the touch, but not before. In damp or foggy weather keep the front ventilators closed, and give a chink of air at the apex, with just sufficient fire-heat to expel moisture. On bright dry days create a circulation of air by opening the top and bottom ventilators for a few hours, warm the pipes to set it in motion and shut up in time to prevent the temperature from descending below 45° after the heat is turned off. Get all external borders well covered with Fern or litter, and place lights or shutters over all where the Grapes are intended to hang until after Christmas.

THE ORCHARD HOUSE.

Though the weather is still favourable, yet the little frost we have had is a proof that the time has arrived for getting all pot trees now standing out of doors well plunged to protect the

pots from injury by the expansion of the soil. When thus taken care of the general stock may remain out in the open air until the middle or end of January, when they will be the better under glass. Meantime steps must be taken for cleansing, painting, and preparing the interior of the house, particularly where it is, or has been, used for soft-wooded plants like Chrysanthemums, which sometimes leave an unwelcome legacy of insect eggs behind them. The general pruning having been performed early in the autumn, shortening back and washing will, as a matter of course, be deferred until the time arrives for housing, but on no account allow the last-named operation to be neglected. A few words may here be said with regard to shortening back, as serious mistakes are sometimes made by cutting the dormant trees into shape, when shy bearing sorts, like Noblesse, which only makes terminal wood-buds, lose some of their most promising shoots by this removal. Practical men, who know that it is always safe to prune to a triple bud, can make no mistake; but the amateur, whose great delight is centred in the performance of his own knife-work, will do well to wait until the buds begin to swell, or if he leaves it until the fruit is set no harm will be done.

W. CRUMP.

Madresfield Court.

FLOWER GARDEN.

RENOVATING HERBACEOUS BORDERS.

THE vigorous life of the majority of our herbaceous plants averages from two to five years, by which time they outgrow their usefulness, and should be superseded by fresh young plants; hence the necessity of renovating the borders every third or fourth year, either by adding fresh soil and manure to vigorous-growing subjects, or by transplanting them entirely. So many plants quickly exhaust the soil about them that without renovation the flowers get gradually smaller, and the plants are ragged and unhealthy. To renovate the borders, dig up those plants that appear weakly, retaining a small portion of the outside of the clump to be replanted. Never replant from the middle of any clump of a herbaceous subject like Chrysanthemum maximum, Pyrethrum uliginosum, Phlox, or Asters, but select instead the sucker-like growths from the exterior. Remove the soil 1 foot deep and as wide again as the size of the root to be put in; replace the soil with some from quite another part of the garden, adding manure in a half-rotten state. The whole of the border between the subjects not requiring fresh planting should be forked over lightly near the plants, so as not to interfere with the roots more than is absolutely necessary. Afterwards, mulch the surface of the border 2 inches thick with a compost of old potting soil, wood ashes, and leaf-mould: a little quicklime added will be of service to the bulk of the plants. If this material is not present in the soil, this will give new life to the plants, rendering the foliage more robust in appearance, increasing the strength of the flower-spikes, and aiding the development of the blossoms also. It is not wise to retain two large clumps of any plant; it is far better to have two small ones together. Not only are those of extra size difficult to support in growth, but the flowers are not nearly so fine owing to want of light.

DAHLIAS.

Though an early frost may have blackened the foliage of Dahlias, it is not wise to be in a hurry to lift the roots, for the longer they can be left in the ground with safety the better. When the weather renders it absolutely necessary, they should be taken up. Choose a dry day for the purpose, and, if possible, cut the stems to within 10 inches or 12 inches of the ground. Dig up the roots, and place them with the stem downwards, so that the water which drains from them may not lodge upon the tubers. In the course of a day or two they will be ready for storing in their winter quarters. Any dry, cool place from which frost can be excluded will suit them well.

SCHIZOSTYLIS COCCINEA.

This useful old plant should now be lifted from the borders, and planted in boxes or pans, and if

removed to a cold vinery or Peach house, and placed in a light position, will give a long succession of brilliant spikes, and prove most useful for cutting. It will last a good time if only given a change of water. Scarlet flowers are none too plentiful at this season, and it would, I am sure, pay all who need variety in cut blooms to adopt this method. Replanting may be done in March, in any light, loamy soil, and a west border suits them best.

Ashwellthorpe, Norwich.

T. B. FIELD.

SOCIETIES.

SOUTHAMPTON CHRYSANTHEMUM SHOW.

THE anxiety which the continuance of the very wet season caused the council of the society was early dispelled on the 3rd inst. by splendid sunshine, and, notwithstanding the adverse season, there was a grand show. Looking at the extent and quality of the exhibits it was difficult to realise that the season had been so disastrous to growers. The Skating Rink, in which the show was held, is one of the largest and best adapted halls for a flower show in the south of England, and this was completely filled in every part. The vase classes made a grand display, occupying 162 vases arranged on step tables down each side of one of the central passages, 84 feet long, the step for the front row being 22 inches from the ground, and for the back row 6 inches higher, these being backed by another step, on which were arranged light Palms and other suitable plants, and between the vases were small Ferns, the whole forming a beautiful avenue, which called forth the admiration of the judges and the public.

Groups of Chrysanthemums were arranged round the end of the hall, Mr. C. Hovey, gardener to J. C. E. d'Esterre, Esq., Elmfield, once more securing the first prize with a collection showing grand flowers and foliage; Mr. B. Hamley, gardener to the Masonic Hall, Woolston, being a close second; and Mr. T. Hall, gardener to the president of the Society (Sir S. Montagu, Bart.), third. In the class for four plants Mr. Hovey was first and Mr. Dymott, Freemantle Nurseries, second. For four bush plants, not detached, the order of merit was reversed, Mr. Dymott securing first and Mr. Hovey second, both showing splendid specimens 3 feet to 4 feet through. Mr. A. Cooper, an amateur, was a creditable third.

The amateurs deserve credit for the groups they arranged, Mr. T. Brown securing first, Mr. F. Chandler second, and Mr. R. Parnell third.

In the class for thirty-six blooms, Japanese, twelve varieties, shown three in a vase, five competed. In this class the winner of the first prize is entitled to hold the Victorian challenge trophy, value £40. Mr. George Hall, gardener to the Dwyer Lady Ashburton, of Melchet Court, was for the third time victor, thereby securing the society's gold medal in addition to the first prize of £7. His blooms, which were in grand condition and of immense size, included F. S. Vallis (premier Japanese bloom in the show), Beale Godfrey, Mrs. J. Lewis, Mme. P. Radaelli (grand blooms), General Hutton, Marquis de Venosta, W. R. Church, Calvat's Gem, Ma. Mease, Mme. Carnot, Mrs. G. Mileham, and Mme. Berwege. Mr. L. Dawes, gardener to Mrs. Ogilvie, Rosneath, Hambleton, was a good second. For six Japanese, two varieties of white, Mr. Henley was first with fine blooms of Gustave Henry and Mutual Friend; Mr. L. Dawes second, with F. Molyneux and Guy Hamilton; Mr. W. Valentine, gardener to H. E. Sugden, Esq., Ingersley, Chilworth, third. For six Japanese, two varieties other than white, Mr. B. Hollis, gardener to Major Chichester, Embly Park, was first, and Mr. Dawes second.

In the class for twelve incurved, six in a vase, Mr. G. Hunt was first with grand blooms, Mr. A. J. Marsh, gardener to M. Hodgson, Esq., Morton House, Kingsworthy, being a close second.

For eighteen blooms, open to gentlemen's gardeners and amateurs, Mr. H. Pearce, gardener to Mrs. Tragett, Abridge Dunes, was first, Mr. Marsh second, Mr. Henley third. In the class for eighteen incurved, confined to gardeners and amateurs, six in a vase, Mr. Marsh was placed first and Mr. Valentine second.

For twelve Japanese, four varieties, open only to the district, Mr. H. Pearce was first, Mr. Henley second, and Mr. F. Chandler, amateur, third.

In the class confined to amateurs, twelve Japanese shown in four vases, Mr. J. Love, of Cowes, was well in front, Mr. F. Chandler being second.

For two vases of single Chrysanthemums arranged for effect, only one was staged, viz., Mr. G. Ellwood, Swanmore Park Gardens, who was awarded first prize.

In the classes shown on boards the most important was, of course, the twenty-four Japanese; of the first prize box the judges expressed the opinion that better would not be seen this season. They were shown by Mr. Hollis of Embly Park, and included Edwin Molyneux (very fine), M. Louis Bemy, Graphic, Mr. J. Bryant, Mme. Gustave Henry, Mrs. G. Mileham (grand), Lord Ludlow, &c.; Mr. G. Hunt second, and Mr. Dawes third.

For twelve Japanese, distinct, Mr. Hollis was again to the front with Mr. J. Lewis, Godfrey's Triumph, Mrs. G. Mileham, Mrs. Mease, Lord Ludlow, The Princess and others.

Twelve incurved Japanese: First, G. Hall; second, L. Dawes; third, Mr. N. H. Muse, Belmont Nurseries.

Twelve Japanese, eight distinct varieties, confined to gardeners and amateurs: first, A. J. Marsh; second, H. Pearce; third, B. Henley.

For six Japanese, open to amateurs, J. Love was first, F. Chandler second, and N. D. Deborough third.

In the novices' class for twelve Japanese, any variety, F. Moore was first, N. D. Deborough second, and F. H. Lowman third.

The silver-gilt medal for the most successful exhibitor in the open cut bloom classes was secured by Mr. B. Hollis. The silver-gilt medal in the classes open to gardeners and amateurs was won by Mr. A. J. Marsh, and the silver medal, for amateurs only, by Mr. J. Love.

There was some spirited competition in the miscellaneous classes, the most important being the groups in which Chrysanthemums were to be a prominent feature. In our opinion the exhibitors failed to adapt themselves to their surroundings. Their groups would probably have looked very well against the side of a tent where the height is only 7 feet, but against a wall some 50 feet high they looked puny; they would certainly have looked better if larger Palms had been used and the back plants raised much higher. Mr. E. Willis, nurseryman, Shirley, was first, T. Tyler, Waterloo Nurseries, second, and Mr. T. Hall third.

Palms, table plants, and fibrous-rooted Begonias were numerous, and all were well grown, the first prize in each going respectively to Mr. T. Hall, Mr. G. Best, and Mr. T. Tyler.

The vases of Chrysanthemums and baskets of autumn foliage, open to ladies only, were also very pretty, Miss M. Snelgrove being first for the vases and Mrs. Ladham for the baskets. In the division for

FRUIT AND VEGETABLES

the Grape classes were well filled, the general quality of the exhibits being of the highest order of merit. For three varieties Mr. Mitchell, gardener to J. W. Fleming, Esq., was first with large and well finished bunches, Mr. O. Eastwell, gardener to Walker Munro, Esq., Rhinefield, Brockenhurst, being a good second.

For any other variety of black, Mr. W. Mitchell was first, O. Eastwell second, and Mr. T. Hall third. For two bunches of white, Mr. O. Eastwell was first with grand bunches, Mr. W. Mitchell second, and Mr. George Ellwood third. Single bunch, white: O. Eastwell first, W. Mitchell second, and G. Ellwood third. Single bunch, black: W. Mitchell first, O. Eastwell second, and T. Hall third. In the Apple and Pear classes just under 100 dishes were staged, against 250 last year. In the four dishes Mr. T. Hall secured the first prize both for dessert and kitchen varieties, and second for single dish. Mr. F. W. Smith, an amateur, took two seconds for dessert in the open classes. Miss Brewer, Major-General Nisbett, and Mrs. Maltby were also prize-takers in these classes. For Pears there were only thirty dishes, Mr. B. Hollis securing the first in each class. Amateurs were represented by four entries, Mr. Smith taking first.

For Messrs. Toogood and Sons' prizes there were eight entries for eight varieties, and fourteen entries for six varieties. For the first-named Mr. Best received the first, and Mr. B. Hollis a close second. For six dishes Mr. George Ellwood was a long way in front, and Mr. G. Best second. Amateurs and cottagers were well represented in this division by sixty-one entries.

The attractiveness of the show was much helped by a number of

TRADE EXHIBITS.

the principal being: Messrs. B. Ladham, Limited, silver-gilt medal for rockwork and hardy flowers; Miss L. Willis, silver-gilt medal for floral designs; Messrs. Toogood and Sons, silver medal for some fifty varieties of Potatoes and other roots; Messrs. W. H. Rogers and Sons, silver medal for collection of conifers and hardy shrubs; Messrs. John Feed and Sons, bronze medals for cut blooms and fruit; Mr. C. Dymott, silver medal for large group of Chrysanthemums in pots (well-grown market plants); and Mr. C. W. Blackmore bronze medal for stand of Gladioli and collection of Potatoes. A finish was given to the exhibition by a large number of fine Palms and other decorative plants lent by Sir S. Montagu, Bart., and W. Garton, Esq., Roseland, Woolston.

The whole of the staging and other arrangements made by the secretary, Mr. C. S. Fudge, gave the greatest satisfaction, as might be expected, with his thirty-two years' experience. The show was attended by between 5,000 and 6,000 during the two days, and the gate receipts were the highest for six years.

WEST OF ENGLAND CHRYSANTHEMUM SOCIETY.

ON the 3rd inst. the show of this society was held in the Guildhall, Plymouth, a marquee in the adjacent square providing additional accommodation. The unprecedentedly wet season has told against Chrysanthemum growers, and complaints of damping off have never been so prevalent as this year. In spite of this, however, the Plymouth show was an unqualified success, and many hundreds of fine blooms were staged in the hall. The society was exceptionally fortunate in having two perfect days for its exhibition, and the crowds that filled the hall augured well for the finances. Considerably over £200 was awarded in prizes, and the competition was keen in almost all classes.

Forty-eight Japanese blooms: First, Mr. F. S. Vallis. This stand was an easy first, but was scarcely so good as that with which Mr. Vallis won the same prize last year. Many of the blooms were very fine, amongst the best being Beale Godfrey, F. S. Vallis, Mrs. J. Lewis, Sensation, Elsie Fulton, W. R. Church, and Brightness. The judges were long in deciding on the destination of the second prize, and it was only by the narrowest margin that it fell to the lot of Mr. G. W. Drake, whose stand contained very fresh but slightly undersized blooms. Of these the best were Mrs. G. Mileham, Matthew Smith, Mafeking Hero, and Mildred Ware. Third, Mr. G. Foster, whose flowers were larger, but some a trifle lacking in freshness, particularly fine blooms being Mme. Paolo Radaelli, General Hutton, Princess Alice de Monaco, and Calvat's Sun.

Twenty-four Japanese blooms: First, Mr. F. S. Vallis, in whose stand Sensation, F. S. Vallis, Beale Godfrey, and Mrs. F. W. Vallis were extremely fine; second, Mr. J. R. Gulson; third, Mr. T. Martin.

Twelve Japanese blooms: First, Mr. G. Foster, whose Mme. P. Radaelli, General Hutton, Godfrey's Pride, and Wonderful were of high merit; second, Mr. J. R. Gulson; third, Mr. W. MacAdam Smith.

Six Japanese, white: First, Sir J. Shelley, with Mrs. J. Lewis; second, Mr. G. J. Gulson, with the same variety; third, Mr. G. Foster, with Mme. Carnot.

Six Japanese, any other colour: First, Mr. J. R. Gulson, with General Hutton; second, Mr. T. Martin, with Mrs. Mease; third, Mr. G. Foster, with F. S. Vallis.

Six incurved Japanese: First, Mr. J. R. Gulson; second, Mr. G. Foster; third, Sir J. Shelley.

There were twelve classes for cut blooms confined to residents within fifteen miles of Plymouth. First prize in the premier class, for twenty-four Japanese, was won by Mr. T. Martin with a stand of great excellence.

Group of Chrysanthemums, 12 feet by 8 feet: First, Mrs. Cottrell Dormer, with a collection of fine-flowered plants; second, Dr. Aldous; third, Mr. S. T. Tall.

Miscellaneous group of stove and greenhouse plants: First, Messrs. J. Webber and Sons, with a group containing Poinsettias, Bouvardias, Carnations, Orchids, Ericas, Arums, Clivias, Begonias, and Lilium longiflorum, interspersed with Crotons and other foliage plants, and edged with Ferns and Asparagus, the central feature being a spreading Phoenix; second, Admiral Parker, with a more graceful group, in which were tall specimens of Cocos plumosa, Humea elegans, Hippeastrums, Pancratiums, Lilium auratum, Poinsettias, and other flowering plants; third, Mrs. Cottrell Dormer.

Floral decoration was one of the features of the hall, Messrs. J. R. Williams being awarded a silver cup for an artistic arrangement surmounted by a huge crown, at a height of 12 feet from the ground, composed of orange Chrysanthemums, and covered at the base with floral designs, which included harps, lyres, wreaths, crosses, stars, a shield with armorial bearings, a violin and bow, shower bouquets, and flower baskets.

Group of Orchids: First, Messrs. J. Webber and Sons; second, Dr. Aldous.

Six Orchids: First, Mr. A. Williams; second, Mr. S. H. Phillips.

Six Begonias, Gloire de Lorraine: First, the Earl of Morley, with large and splendidly-flowered plants; second, Messrs. J. Webber and Sons.

Prizes were also given for Primulas, Cyclamens, Roman Hyacinths, zonal Pelargoniums, and table plants, and twelve classes were allotted to specimen pot Chrysanthemums.

The silver cup presented by the president for eighteen dishes of Apples, open to market gardeners, was won by Mr. A. H. Callaway.

Collection of twenty dishes of Apples: First, the Earl of Morley; second, the Earl of Mount Edgumbe. In the thirty other fruit classes the prizes were chiefly won by the Earl of Mount Edgumbe, Sir John Shelley, Mr. Gulson, the Earl of Morley, and Admiral Parker.

The chief prizes in the vegetable classes were won by Sir John Shelley.

Messrs. T. Challice and Son, Plympton, were awarded a certificate and silver medal for an interesting stand, containing many species of Echinocacti and Opuntias, Orchids, Casuarina sumatrana, Asparagus myriocladus, Browallia speciosa, Ruellia macrantha, and a collection of flowering and foliage plants. Mr. H. Hodge, St. Austell, was given a certificate of merit for his single and double tuberous Begonia blooms, of which plants he grows over 12,000. Messrs. B. Veltch and Son, Exeter, exhibited Chrysanthemum blooms, Cattleyas, Lælias, Cyrtopodiums, Bouvardias, Nerines, Fernettyas, Correas, and Begonias. Mr. W. J. Godfrey, Exmouth, showed exhibition blooms of Chrysanthemums of his own raising, and trusses of zonal Pelargoniums, of which Scott Turner, scarlet; Mary Felton, salmon; and Captain Holford, crimson, were particularly good. Messrs. Rositer, Paignton, staged a good collection of Apples.

EXETER CHRYSANTHEMUM.

THIS show was held on the 5th inst. in the Victoria Hall, and a very attractive exhibition was provided, although, owing to the unpropitious season, entries were scarcely so numerous as in former years. However, quality was well represented, and both in flowers and fruit the winning exhibits left little to be desired.

For circular groups of Chrysanthemums 10 feet in diameter: First, Mr. J. Townsend, with a fine collection of large-flowered plants, the blooms being of great size and very fresh. To this group the National Chrysanthemum Society's certificate was awarded; second, Mr. W. Brock.

Semi-circular groups: First, Mr. C. M. Collingwood; second, Mr. W. Brock.

Miscellaneous collection of plants arranged for effect: First, Mr. W. Brock, with a handsome group containing tall specimens of Cocos plumosa, Poinsettias, Arums, Cosmos bipinnatus, Cattleyas, Oncidium, and other Orchids, Begonias, Pelargoniums, and Crotons; second, Mr. W. B. Heberden, with a group including Carnations, Nerines, Gladioli, and Salvias.

Primulas: First, Captain Radcliffe; second, Mr. H. Turner. Cyclamens: First, Mr. T. Kekewich; second, Sir J. D. F. Davis.

Six dinner-table plants, 5-inch pots: First, Mr. W. B. Heberden; second, Mr. B. H. Hill. Three dinner-table plants: First, Mr. H. Turner; second, Sir D. King.

Six dinner-table plants, 8-inch pots: First, Mr. H. Turner; second, Mr. W. B. Heberden.

Bouvardias: First, Mr. W. Brock; second, Mr. H. Turner. Poinsettias: First, Mr. T. Kekewich; second, Mr. W. Brock.

Begonia Gloire de Lorraine: First, Mr. J. Townsend. Cut blooms—thirty-six Japanese: First, Mr. F. S. Vallis, who followed up his Plymouth success with an excellent stand, in which Mrs. J. Lewis, Beale Godfrey, Brightness, F. S. Vallis, Mildred Ware, Elsie Fulton, Nellie Pockett, and Valerie Greenham were exceedingly fine. This stand was awarded the National Chrysanthemum Society's certificate

of merit; second, Mr. G. Foster, whose blooms totalled only one point above those of the third prize stand. In this stand Mme. P. Radaelli, General Hutton, and Mafeking Hero were especially good; third, Mr. H. N. Harrison, whose W. B. Church, Lord Ludlow, and Mme. Waldeck Rousseau were fine; fourth, Mr. B. H. Hill.

Eighteen Japanese: First, Mr. B. H. Hill; second, Sir J. Shelley; third, Mr. J. E. Gulsom.

Twelve Japanese: First, Mr. C. M. Collingwood.

Six Japanese, white: First, Sir J. Shelley, with Mrs. J. Lewis; second, Mr. J. E. Gulsom, with the same variety.

Six Japanese, yellow: First, Mr. W. L. Jones, with Mr. Louis Remy, very fine; second, Mr. B. H. Hill, with Kimberley.

Six Japanese, any other colour: First, Mr. W. L. Jones, with W. B. Church exhibited in its natural form; second, Sir D. King, with the same variety dressed so that the petals were reflexed.

Twelve Japanese, incurved: First, Mr. B. H. Hill; second, Sir J. Shelley; third, Mr. J. E. Gulsom.

Six incurved: First, Mr. C. M. Collingwood.

Five classes for cut blooms were allotted to amateurs not employing a gardener, many of the stands being exceedingly creditable.

Thirty-six Japanese in vases: First, Sir D. King; second, Mr. C. M. Collingwood; third, Mr. T. Knapman.

Six trusses Pompons: First, Mr. J. E. Gulsom; second, Mr. T. Knapman.

Six vases singles: First, Sir D. King; second, Mr. T. Knapman.

Fruit is always a feature of the Exeter show, and no less than fifty-six classes were allotted to it. The exhibits were mostly of first-rate quality, the prize for single specimen Apples being won by one of the largest Bismarcks ever seen. The chief prizes in the fruit classes were won by Sir John Shelley, Sir J. D. F. Davis, and Mr. J. R. Gulsom. A vase of flowers of the blue Shamrock Pea (*Parochetus communis*) from Nepal, but hardy in warm spots in this country, was staged, not for competition, by the Rev. E. E. Heathcote.

The Devon Roostery, Torquay, exhibited a fine collection of over sixty dishes of Apples, for which the firm was awarded a certificate of merit, a like award being made to Messrs. Sutton, Reading, for their Potato Discovery, and to Messrs. Robert Veitch and Son, Exeter, for their stand of plants and flowers, which contained fine exhibition blooms of Chrysanthemums, with Bouvardias, Nerines, Primulas, Arctotis, *Panocratum macrostaphanum*, *Linaria trinornithoptera*, and other flowering plants, as well as an interesting collection of variegated conifers, amongst which were *Retinospora plumosa aurea*, *Cupressus lawsoniana versicolor*, *Thuja Loblii aurea*, *Picea pungens glauca*, *Taxodium sempervirens alba spica*, *Cedrus atlantica glauca*, and *Glyptostrobus heterophyllus*.

KENT COUNTY CHRYSANTHEMUM.

THE sixteenth annual exhibition of Chrysanthemums was held at the Rink, Blackheath. The total number of entries was 158, and some classes were well contested, most of the exhibits being of excellent quality. The vase classes were one of the best features. The premier blooms were Miss Nellie Pockett (Japanese) and C. H. Curtis (incurved).

In the group class there were only two competitors; these were very good, but formal in arrangement. The first prize went to Mr. A. W. Hollands; second, Mr. H. C. Strickland.

For eighteen incurved and eighteen Japanese there were four exhibits, all of high merit. First, Mr. C. Payne; second, Mr. J. E. Poole; third, Mr. H. C. Strickland.

For twelve Japanese, distinct: First, Mr. T. E. Brown; second, Mr. J. Lyne; third, Mr. G. B. Lees.

For twelve incurved: First, Mr. T. E. Couldrey; second, Mr. J. E. Poole; third, Mr. G. B. Lees.

For twelve Japanese reflexed: First, Mr. T. E. Couldrey; second, Mr. J. E. Poole; third, Mr. J. Lyne.

For twelve Pompons in bunches of three flowers: First, Mr. W. Pascoe. The second exhibitor did not conform to the schedule, having some large Anemone-flowered varieties in the stand, but was awarded an extra prize.

For six Japanese, one variety coloured, the variety shown being Mrs. G. Mileham: First, Mr. A. C. Strickland; second, Mr. W. S. Larkin.

For six incurved, one variety: First, Mr. T. E. Brown, with C. H. Curtis; second, Mr. E. T. Couldrey. The above classes were open.

In some of the special classes there was a good competition. The chief prize-winners were Messrs. Couldrey, Poole, Lyne, T. E. Browne, Payne, Hawkins, Lees, G. Judge, J. A. Baker, and F. Sharp.

In the class for two Japanese and two incurved, in vases with any foliage, there were ten entries and some very fine blooms. First, Mr. Pascoe; second, Mr. Couldrey; third, Mr. F. Sharpe.

In the classes for gardeners within a radius of three miles of the Rink, for twelve incurved, distinct, Mr. Couldrey was first; second, Mr. W. H. Culham.

For twelve Japanese, distinct: First, Mr. Judge; second, Mr. Couldrey; third, Mr. Baker. In the amateurs' classes there were some very good exhibits, but in several classes there were no entries.

In the class for a group of miscellaneous plants there were four entries. Mr. Lyne took first with a very tasteful arrangement, in which *Clerodendron fallax* was very effective, also *Anthurium sanguineum*, *Cattleya labiata*, well-coloured Crotons, and other foliage; second, Mr. W. Heath, with some good material, but the best plants were not shown to advantage.

The fruit classes were not well filled. Mr. W. Taylor and Mr. Lyne sent some good Grapes. Some good baskets and trays of vegetables were exhibited.

MISCELLANEOUS.

Messrs. Veitch and Sons put up a very handsome group of foliage and flowering plants, among which were some fine varieties of *Cattleya labiata*, *Oncidium varicosum*, O. Forbesi, and O. incurvum; *Begonia Gloire de Lorraine*, Turnford

Hall, and Mrs. Heal; Lily of the Valley; Crotons included fine specimens of B. Comte, Cheloni, Prince of Wales, Flamingo, and others; *Dracaena Donceiti*, goldiana, sandaraca, Lord Wolsey, and others; *Maranta Veitchii*, *Tillandsia massangana*, Palms, and other choice plants.

Mr. H. J. Jones had an excellent group of Chrysanthemums and foliage; some good singles were among the Chrysanthemums, of *Victoria*, *Rose Queen*, *Pink Perfection*, and *Fairy*; and of large Japanese, *Sensation*, *Mme. W. Rousseau*, and *Mme. E. Chabaneau* were very fine.

Messrs. B. Mallor sent some good floral arrangements in Chrysanthemums and good flowering Heaths, &c.

Messrs. J. Laing and Sons decorated the stage, using some good material effectively. A single pink Chrysanthemum, *Lady Smith*, was very good.

A table of Apples and other fruits from S. Bramford, Esq., Chislehurst, was a great attraction. Twenty-four varieties of Apples were shown, all beautifully coloured. Allington Pippin, Gasconne's Scarlet, Red Reinette, and King of Pippins were very good, as also were the Grapes and Tomatoes.

Mr. W. Gilbert showed some good Kent-grown Apples.

From Mr. J. C. Geiselbrecht came a good new Chrysanthemum, Mrs. G. Judge, a large Japanese, with broad, drooping petals of a bright rose-pink, one of the best of this colour; and a Pompon, *Little Dorrie*, bluish-pink, very pretty.

WINDSOR.

THE annual exhibition was held in the Albert Institute on the 6th inst., and was a little short in entries, but quite up to the usual standard of quality. Mr. C. Sainty, as usual, carried out the arrangements admirably.

For a group of Chrysanthemums and foliage plants there were three competitors. Mr. W. Cole, gardener to Mrs. E. B. Foster, Clewer, was first with an exhibit that little fault could be found with. Mr. W. Lane, gardener to Sir E. Durning Smith, was second with dwarf plants carrying good blooms too crowded in arrangement. Mr. J. Minty, gardener to Sir D. Gooch, Bart., was third.

In a smaller class confined to amateurs only Mr. J. T. Young, Windsor, won easily.

CUT BLOOMS.—JAPANESE.

These were numerous. For eighteen distinct, arranged in a space of 5 feet by 3 feet, with the addition of any foliage, a pleasing effect was produced, and illustrated thoroughly how large Chrysanthemums can be utilised for effect. Mr. G. Lane, with excellent blooms, arranged on a base of Maidenhair Ferns won first place quite easily. Mr. W. Hearn, gardener to Mrs. Gerald Goodlake, was second, and Mr. D. Hayler, gardener to Lady Dalton Fitzgerald, third.

For six vases, three blooms of any one variety, Mr. W. Jinks, gardener to L. J. Drew, Esq., was first with really fine blooms of Mrs. T. W. Pockett, Mrs. Mileham, W. R. Church, and Rev. W. Wilks as the most noteworthy; Mr. Lane, second; Mr. J. Jacobs, gardener to A. L. Wigan, Esq., third.

In a class for twelve Japanese and the same number of incurved a silver cup was offered. Mr. Wilson, gardener to Mrs. Christie, was easily first with large fresh examples of both sections. Of Japanese Rev. W. Wilks, Mrs. Mease, W. R. Church, General Hutton, Mrs. Emmerton, and E. J. Warren were noteworthy; and of incurved Louisa Gilles, C. H. Curtis, Hanwell Glory, Frank Hammond, Duchess of Fife, Mrs. H. J. Jones, Nellie Southam, and Mrs. Judson were conspicuous. Mr. Lane was second, and Mr. Page, gardener to J. B. Fortescue, Esq., Dromore, third.

For twelve incurved, distinct, Mr. Jinks, with large neat blooms was first; Mr. Baskett, gardener to E. H. Beckett, Esq., M.P., second.

For six incurved, any one variety, Mr. Page, with medium-sized, well-finished examples of *Empress of India*, was first, Mr. Jinks, with C. H. Curtis, somewhat rough, was second, while Mr. Baskett, with pretty but small examples of the same variety, took third place.

Mr. Minty was the most successful in the class for six Japanese, any one variety, with Beale Godfrey in grand order, followed by Mr. Jinks, with Mafeking Hero. Mr. Lane, with Mrs. Mileham, brought up the rear.

In the class for twelve blooms, any section, arranged in a vase or basket, with not less than 12 inches of stem, with any natural foliage added, there was quite a brisk competition and satisfactory results. Mr. Jinks, with really fine flowers of popular varieties effectively arranged, easily secured the Dowager Duchess of Sutherland's special prize. F. S. Vallis in this exhibit was awarded the National Chrysanthemum Society's certificate for premier bloom in the show. Messrs. Lane and Page followed in the order here given.

CARDIFF.

THE sixteenth annual autumn exhibition of the Cardiff and District Chrysanthemum Society was held in the Park Hall on the 4th and 5th inst. The great success of the display is undoubtedly owing to the spirited policy of the executive in providing liberal prizes and up-to-date classes, whereby they command the best support of exhibitors. In the immediate neighbourhood of Cardiff there seems to be a wonderful spirit of emulation among growers, as nowhere can such exhibits be seen in the classes devoted to cottagers as here. Cut blooms were numerous and good; groups of Chrysanthemums, as well as miscellaneous plants, were satisfactory. Floral decorations, as wreaths, bouquets, are seen here quite equal in point of quality to those anywhere. The executive is apparently imbued with a determination to still further increase its show. The committee work hard under the chairmanship of Mr. Julian, ably guided by Mr. Gillett, the experienced secretary.

CUT BLOOMS

were the chief attraction, therefore demand a prior notice. The principal class was that for eight varieties of Japanese, distinct, three blooms of each, staged in vases, with Chrysanthemum foliage. The leading prize was a challenge cup

with 25 added. Five competed, making a good display. Mr. Drake, 44, Cathays Terrace, Cardiff, was an easy winner with a grand set of blooms, large, shapely, and beautifully staged. The varieties were *Duchess of Sutherland*, W. R. Church, Mrs. Lewis, Mrs. Barkley, Charles Davis, rich in colour; Paolo Radaelli, huge blooms; Mme. Herwege, and Mrs. Mileham, very fine. Mr. J. Duff, gardener to Mrs. Williams, Newport, was a good second, with high quality flowers if a trifle smaller than the first prize set; Mr. G. Williams, Manor House Nurseries, Cardiff, third.

For twelve Japanese, distinct, Mr. Drake was again premier prize-taker with an even set of high-class blooms, as F. W. Vallis, George Lawrence, Mrs. Mileham, Paolo Radaelli, C. J. Salter, Matthew Smith, and others; Mr. E. Townsend, gardener to H. Pitt, Esq., Abergeenny, was a close second; Mr. J. Williams, third.

Incurved varieties were not strongly represented in point of numbers, but the quality was good. For twenty-four in not less than twelve varieties, Mr. Drake won first place with medium-sized, neatly-finished examples of Mrs. Judson, Mrs. Egan, Mme. Ferlat, C. Curtis, &c.; Mr. Townsend was a close second.

In the classes set apart for amateurs and gardeners the competition was exceedingly keen. In competition for the Courtis Challenge Cup, for twenty-four Japanese in not less than eighteen varieties, there was keen competition and an excellent display. Mr. E. A. Parsons, gardener to Mrs. J. D. Gunn, Cardiff, was the most successful with satisfactory flowers of Mrs. Lewis, Mrs. Mease, W. R. Church, Paolo Radaelli, F. S. Vallis, &c.; Mr. John Dunn, gardener to Mrs. Williams, Bryn-glas, Newport, second; Mr. H. A. Allen, Penarth, a close third.

For twelve Japanese no fewer than seven competed. With a splendid exhibit Mr. A. F. Hill, Cardiff (amateur), secured the leading award. F. S. Vallis, the premier bloom in the show, was included. Mr. Edwards, Severn Road, Cardiff, was second; Mr. H. Frazer, gardener to D. Adsett, Esq., The Hollies, Penarth, third.

For the best twelve Japanese blooms in not less than four varieties, open to those not employing a regular gardener, a silver challenge cup was offered, for which seven competed. Mr. Hill was again successful with grand examples of popular varieties, Mr. Edwards second, and Mr. C. S. Arthur, 149, Albany Road, Cardiff, third.

In the class for twelve incurved the competition was not keen, but the two exhibits staged were meritorious. Mr. E. A. Parsons was the most successful with neat, small, examples.

White-flowered Japanese varieties had a class set apart to themselves. For five blooms, any one variety, Mr. V. Hatherdale, Manor Cottage, Cardiff, won the premier prize with Mrs. Lewis in good condition; Mr. Edwards, with Mrs. Carnot, second.

For five Japanese, any one variety except white, Mr. Hill won with magnificent examples of Mrs. Mileham, Mr. Edwards depending upon Mrs. Mease for second place.

For twelve Japanese in four varieties, staged in vases, Mr. Allen, with Mrs. T. W. Pockett, Mrs. Mileham, Mr. Louis Remy, and Mme. Herwege, won against six others; Mr. Edwards second, Mr. Frazer third.

For six vases, Japanese, three blooms in each, Mr. Thomas Olive, Tockington, Gloucester, won with first-rate examples of popular varieties; Mr. E. Curtis, gardener to T. E. Cartwright, Esq., Fairwater, second; Mr. Geiman, gardener to H. Edworth, Esq., Cowbridge, third.

Single-flowered varieties were well represented. For six bunches, distinct, three sprays to each, Mr. T. Bindon, gardener to Dr. T. Wallace, Cardiff, was an easy first; Mr. I. Williams, 68, Keppock Street, Cardiff, second. Mr. Bindon also had the best arranged vase of single-flowered varieties, followed by Mr. Shackson, gardener to Lord Romilly, Park-kerry Park, second. Several classes were set apart for cottagers; it was surprising to see how well they acquitted themselves, too. Many really fine examples were staged.

PLANTS.

were not numerous but good in quality. For a group of Chrysanthemums arranged with foliage plants for effect, Mr. W. Treseader, The Nurseries, Cardiff, was an easy first prize-winner with plants carrying large fully developed blooms arranged lightly, yet effectively; Mr. G. Williams second.

Bush-trained plants were not numerous. For four Mr. Treseader staged the best; Mr. G. Nurse, 22, Wellington Street, Cardiff, second.

In the classes open to amateurs only for groups of Chrysanthemums 50 square feet and 32 square feet, the competition was keen. In the former class Mr. A. Brown, gardener to J. Howell, Esq., Cardiff, was first. In the smaller class Mr. W. H. Owens, 62, Salisbury Road, Cardiff, was the most successful.

MISCELLANEOUS.

For the best hand bouquet of Chrysanthemums Mr. John Crossling, Penarth Nurseries, was placed first; Mr. W. Treseader was second, but in our opinion he should have been first; Messrs. Ellis and Son, Westfield Nurseries, Cardiff, third. Messrs. Ellis and Son, Cowbridge Road, Cardiff, had the best cross of Chrysanthemums. Mr. W. Baggeen, Albany Road, Cardiff, the best wreath—a magnificent display.

The class for a bridal bouquet produced keen competition. Mr. W. Treseader, with a charming arrangement of *Orchids* and *Lily of the Valley*, secured the coveted position; Mr. W. Baggeen following.

Non-competitive exhibits were numerous, and added much to the interest of the show. Gold medals were awarded to Mr. John Basham, Fair Oak Nursery, Bassaleg, Newport, for a magnificent display of hardy fruit; especially fine were the Apples and Pears. To Messrs. J. Cypher and Son, Cheltenham, for an attractive exhibit of *Orchids*, and to Mr. W. Treseader for a collection of Dahlias and Roses.

First-class certificates were awarded to Mr. H. J. Jones, Rycroft Nursery, Lewisham, for seedling Japanese Chrysanthemum Mrs. J. Dunn, a pure white-flowered variety with exceptionally long drooping florets, most graceful and distinct

even among whites; and to Marie du Cros, a bold handsome flower with long flat florets, straw white on the outer deepening to yellow in the centre of the flower.

BIRMINGHAM CHRYSANTHEMUM SHOW.

THE annual exhibition of the Birmingham and Midland Counties Chrysanthemum Society was held on Tuesday, Wednesday, and Thursday last in the Bingley Hall, and, although the general opinion seemed to be that blooms had been better, it was undoubtedly a grand display of produce. The disposal of the exhibits produced a better effect than in previous years. Mr. J. Hughes, sen., and Mr. J. Hughes, jun., the secretaries, deserve unstinted praise for their arrangements.

PLANTS.

Nine large flowering Chrysanthemums.—First, E. Martineau, Esq., Edgbaston (gardener, Mr. Brasler), Alfred alter and Mme. Ferlat being the best; second, G. Cadbury, Esq., Northfield (gardener, Mr. J. Meldrum); third, J. A. Kenrick, Esq., Edgbaston (gardener, Mr. A. Cryer).

Six large flowering plants, Japanese excluded.—First, G. Cadbury, Esq., with Lady Isobel and Lord Alcester as the set; second, E. Martineau, Esq.

One Japanese Chrysanthemum plant.—First, G. Cadbury, Esq., with a splendidly flowered plant of Charles Davis; second, E. Martineau, Esq., with Colonel Smith; third, A. Kenrick, Esq.

Six Japanese (disimilar).—First, E. Martineau, Esq., with Vivand Morel, J. Thorpe, jun., and Colonel Smith (excellent); second, J. A. Kenrick, Esq.

Three Japanese.—First, E. Martineau, Esq., W. Cursham

One vase each of eight distinct varieties, five blooms in a vase.—First, Colonel Beech, Coventry (gardener, Mr. E. J. Brooks), with a splendid exhibit, F. S. Vallis, Mrs. G. Mileham, and W. R. Church being fine; second, Leamington Nurserymen and Florists, Limited, Leamington, with well-formed blooms; third, Mr. J. H. Goodacre, Elvaston Castle Gardens; fourth, G. H. Hadfield, Esq., Ross (gardener, Mr. J. Rick). There were several more entries.

One vase each of four Japanese varieties.—First, Mrs. Martin, Edgbaston (gardener, Mr. T. W. Davis); second, E. Horton, Esq., Walsall (gardener, Mr. S. Horton).

One vase each of two Japanese varieties.—First, R. Barnes, Esq., Malvern, with splendid Le Grand Dragon and Australie; second, E. Horton, Esq., Walsall; third, Mrs. Armfield, Edgbaston (gardener, Mr. C. Batchelor). There were several more entries.

One vase of a pink Japanese.—First, the Dowager Lady Hindlip, Droitwich (gardener, Mr. C. Crooks), with grand Mme. Paolo Radaelli; second, E. Horton, Esq., Walsall; third, Mrs. Martin, Edgbaston. There were numerous other entries.

One vase of any Japanese.—First, F. E. Muntz, Esq., Umberslade (gardener, Mr. Pritchard), with very fine W. R. Church; second, the Dowager Lady Hindlip, with the same variety; third, L. Lloyd, Esq., Moseley (gardener, Mr. T. Bird).

One vase of white Japanese.—First, A. Heaton, Esq., Handsworth (gardener Mr. F. Biddle), with Mme. G. Henry; second, A. Taylor, Esq., Acoc's Green, with Nellie Pockett; third, the Dowager Lady Hindlip.

One vase of yellow Japanese.—First, the Dowager Lady Hindlip (gardener Mr. Crooks), with splendid deep-coloured

Lady Esther, and W. R. Church as the best; second, W. Manning, Esq., Dudley; third, H. Needham, Esq., Gravelly Hill.

Twelve specimen blooms on long stems with any foliage.—First, R. Barnes, Esq., Malvern, with an attractive exhibit; second, Mr. J. V. MacDonald, gardener to G. H. Kenrick, Esq., with good blooms; third, Mr. R. Bullock, gardener to T. W. Piggott, Esq., Moseley. There were several other exhibits.

Twenty-four blooms (twelve Japanese, twelve incurved).—First, Mr. MacDonald, gardener to G. H. Kenrick, Esq., Edgbaston, with good blooms, especially of Matthew Smith, Mme. Cadbury, Duchess of Fife, and Mme. Ferlat; second, Mr. T. W. Davis, gardener to Mrs. Martin, Edgbaston.

Twelve blooms (six incurved, six Japanese), to be grown within four miles of Birmingham.—First, Mr. J. Eason, gardener to A. Clarke, Esq., Edgbaston; second, Mr. G. Palmer, gardener to W. Clarke, Esq., Edgbaston; third, Mr. G. Bedford, gardener to E. J. Byrne, Esq., Gravelly Hill.

Dinner-table decoration.—First, H. Woolman, Esq., Acoc's Green, with an arrangement of bronze Source d'Or; second, the Leamington Nurserymen and Florists, Limited, Leamington, who used bronze-yellow flowers; third, Mr. C. Thomas, gardener to G. A. Palmer, Esq., Handsworth. There were nine exhibits in this class.

FRUIT.

Collection of British-grown fruit.—First, Mr. J. H. Goodacre, Elvaston Hall Gardens, Derby, with a very handsome display of highly coloured fruit. Grapes Muscat of Alexandria, Gros Colmar, and Barbarossa; Pears Doyenné du Comice, Beurré Fouquieray, and Marie Louise; Apples Twenty Ounce, Cox's Orange Pippin, Allington Pippin, and Peach Golden Eagle were all excellent. Mr. J. Read, gardener to the Earl of Carnarvon, Bretby Park, was given third prize. Gros Colmar and Alicante Grapes were very good, but the hardy fruits were small. There were no more exhibits in this class.

Grapes, six bunches.—First, Mr. J. H. Goodacre, Elvaston Castle Gardens, with very good Muscat of Alexandria, Barbarossa, and Alicante; third, Mr. J. Jones, gardener to Mrs. F. Need, Malvern, with large Diamond Jubilee, Gros Colmar, &c.

Black Grapes, three bunches.—First, Mr. J. Jones, with excellent Gros Colmar; second, Mr. H. Folkes, gardener to the Right Hon. T. F. Halsey, M.P., Hemel Hempstead; third, Mr. Goodacre.

White Grapes, three bunches.—First, Mr. Goodacre, with well finished Muscat of Alexandria. No more exhibitors.

White Grapes, two bunches.—First, Mr. J. Jones, Malvern, with Lady Hutt; second, Mr. J. Rick, with White Queen; third, Mr. H. Folkes, with Golden Queen.

Black Grapes, two varieties (local).—First, Mr. C. Batchelor, gardener to Mrs. Armfield, Edgbaston; second, Mr. T. W. Davis, gardener to Mrs. Martin, Edgbaston.

Culinary Apples, six dishes.—First, Mr. C. Crooks, Droitwich, with very good Peasegood's, Emperor Alexander, &c.; second, Mr. R. Jones, Barford Hill Gardens, with Warner's King and Lane's Prince Albert the best.

Desert Apples, six dishes.—First, Mr. J. Rick, gardener to G. H. Hadfield, Esq., Ross; second, Mr. C. Crooks; third, Mr. E. Jones.

Chinese Primulas and Cyclamen were well and largely shown.

VEGETABLES.

Collection of vegetables (prizes by Messrs. Webb and Sons).—First, Mr. E. Beckett, gardener to Lord Aldenham, Elstree, Onions Allia Craig being very fine, Mr. G. Neal, gardener to P. Southby, Esq., Hampton, was second; W. Pemberton, Esq., Walsall, was third; and Mr. Bastin, Buscot Park Gardens, fourth. There were numerous other entries.

Collection of vegetables (prizes by Messrs. Sutton and Sons).—First, Mr. W. Leith, gardener to Colonel P. E. Middleton, Ross; second, Mr. A. G. Gentle, gardener to Mrs. Dennison, Little Gaddesden; third, Mr. W. L. Bastin, Farlington.

Mr. Robert Sydenham, Tenby Street, Birmingham, gave prizes in many classes for dishes of Cauliflowers, Savoy Cabbage, Red Cabbage, Carrots, Leeks, Onions, &c. Mr. Sydenham offered a £15 silver challenge bowl to the winner of the greatest number of points in the above classes, and if won three times the bowl becomes the exhibitor's property. The winner of the bowl was Mr. Horspool, Old Chirk Gardens, Ruabon, who gained 32 points. Mr. Folkes had 29 points, and Mr. Read 26 points.

The local cup offered by Mr. W. Sydenham was won by Mr. W. A. Marrian, Olton, with 33 points, Mr. Haytree of Solihull having 32 points.

Collection of vegetables (prizes by Messrs. Hewitt and Co., Solihull).—First, Mr. E. Beckett, Aldenham House Gardens; second, Mr. C. Haynes, gardener to W. E. Alston, Esq., Elmdon Hall; third, Mr. J. Read, gardener to the Earl of Carnarvon, Burton-on-Trent; fourth, Mr. H. Wright, gardener to W. Waldron, Esq., Kingwinford.

Collection of vegetables (prizes by Messrs. Thomson and Co., Spark Hill).—First, Mr. Beckett, with a fine display. Potato Up-to-date was very good; second, Mr. F. J. Clark, gardener to Mark Firth, Esq., Leicester; third, Mr. G. Neal, gardener to P. Southby, Esq., Hampton; fourth, Mr. H. Folkes, gardener to the Right Hon. T. F. Halsey, M.P., Hemel Hempstead.

Collection of vegetables (prizes by Messrs. Richard Smith and Co.).—First, Mr. E. Beckett; second, R. A. Horspool, Esq., Ruabon.

NON-COMPETITIVE EXHIBITS.

Messrs. Webb and Sons, Wordsley, Stourbridge, showed a collection of Potatoes in many good sorts, such as Webb's Improved Magnum Bonum, Evergood, Snowdrop, and others. Displays of Potatoes were arranged on either side of a splendid lot of Begonia Gloire de Lorraine and B. Turnford Hall and Cyclamen.

The King's Acre Nursery Co., Limited, Hereford, had an admirable display of hardy fruit, Apples chiefly. Among the best dishes were Stirling Castle, Cellini, Lane's Prince Albert,



PRIZE GROUP OF CHRYSANTHEMUMS AT THE BAKEWELL SHOW.

(This group was shown by Mr. W. Keetley, gardener to Stanley Orme, Esq., Granby, Bakewell, Derbyshire, at the Chrysanthemum show held at Bakewell, November, 1902; it was awarded first prize and a Silver Challenge Cup. Our illustration is from a photograph by Mrs. Stanley Orme.)

and Mrs. J. Kitson being splendid; second, G. Cadbury, Esq.; third, J. A. Kenrick, Esq.

One large flowering (Japanese excluded).—G. Cadbury, Esq., the only exhibitor, was given a first prize for Mme. Ferlat.

Group of Chrysanthemums, arranged with Ferns and foliage plants.—First, G. Cadbury, Esq. (gardener, Mr. Meldrum), with a somewhat compact group of well-grown plants bearing very good blooms; second, A. H. Griffiths, Esq., Edgbaston (gardener, Mr. C. Kelland), with smaller blooms, but a rather more pleasing arrangement; third, A. Clarke, Esq., Edgbaston (gardener, Mr. J. Eason).

Group of Chrysanthemums (quality of bloom, variety, and general effect to be considered).—First, J. H. Kenrick, Esq., Edgbaston (gardener, Mr. J. MacDonald), with a magnificent display of plants bearing fine blooms. The group was boldly yet informally arranged, and was most effective; J. Whitfield, Esq., Moseley (gardener, Mr. W. Thomson), was second, with a less effective group, though still very good, and J. A. Kenrick, Esq., Edgbaston (gardener, Mr. A. Cryer), was third.

VASE CLASSES.

One vase each of four Japanese varieties.—First, Colonel Beech, Coventry (gardener, Mr. E. J. Brooks), with lovely blooms of F. S. Vallis, Guy Hamilton, Mrs. P. Radaelli, and W. R. Church; second, F. E. Muntz, Esq., Umberslade (gardener, Mr. T. Pritchard), W. R. Church being the best; third, G. H. Hadfield, Esq., Ross (gardener, Mr. J. Rick).

F. S. Vallis; second, R. Barnes, Esq., Malvern, with M. Louis Remy; third, A. Heaton, Esq., Handsworth.

CUT BLOOMS.

Eighteen incurved blooms.—First, Mr. J. H. Goodacre, Elvaston Hall Gardens, with a fine lot. Mme. Ferlat, C. H. Curtis, Topaze Orientale, and Perle Dauphinoise were the best; second, Sir A. Henderson, M.P., Faringdon (gardener, Mr. W. L. Bastin), with rather smaller blooms, though of excellent form.

Eighteen Japanese.—First, Colonel Beech, Coventry (gardener, Mr. E. J. Brooks), with somewhat loose blooms. Mme. J. Henry, Henry Stowe, Guy Hamilton, and Ethel Fitzroy were of the best; second, Mr. C. Crooks, gardener to Lady Hindlip, Droitwich, with good blooms, particularly of Miss M. Ware and Mme. Paolo Radaelli; third, the Leamington Nurserymen and Florists, Limited.

Twelve incurved.—First, Mr. C. Crooks, Droitwich, with very good C. H. Curtis, Duchess of Fife, and Mme. Ferlat, though none were of unusual quality; second, Mr. W. L. Bastin, gardener to Sir A. Henderson, Faringdon, with rather small, well-formed blooms; third, W. Manning, Esq., Dudley.

Twelve blooms (six incurved, six Japanese), to be grown within six miles of Birmingham.—First, Mrs. Martin, Edgbaston (gardener, Mr. T. W. Davis); second, T. W. Piggott, Esq., Moseley; third, E. Martineau, Esq.

Twelve Japanese.—First, Mr. R. Jones, gardener to C. A. Smith-Ryland, Esq., Barford Hill, with Mrs. G. Mileham

Warner's King, Tom Putt, King of the Pippins, Adam's Pearmain, King of Tompkins County, &c. Pear Pittmaston Duchess was very fine. The table was tastefully decorated with small Palms, Virginian Creeper, &c.

Mr. John Basham, Bassaleg, Newport, Mon., showed hardy fruit extensively; some of the best dishes of Apples were Peasgood's Nonesuch, Allington Pippin, Lord Derby, and Wellington; and Pears Catillac, Uvedale's St. Germain, and Easter Beurré. This collection of fruit was an imposing one, and arranged with good effect.

Messrs. Richard Smith and Co., Worcester, had some excellent dishes of Apples on view. Warner's King was particularly so. Ecklinville, Peasgood's Nonesuch, and Tyler's Kernel were others very good. Pears Beurré Superfin, Alexandre Lucas, Hazon's Incomparable, and Durondeau were also fine.

Mrs. Whitehouse, 48, Tindall Street, Balsall Heath, showed a collection of cut Chrysanthemums.

Mr. W. J. Godfrey, Exmouth, Devon, showed some fine large blooms of Chrysanthemums and bunches of zonal Pelargoniums. Carnations, too, were included in this display, which was a very bright one. Among the Chrysanthemums Exmouth Bival, Wilfred H. Godfrey, Colonel Weatherall, Britannia, and F. S. Vallis were particularly good. Of Carnations, Waverley (salmon), Queen of Pinks, and General Roosevelt (dark crimson) were very good. The Godfrey Calla, a large, pure white form, was well shown too.

Messrs. W. Wells and Co., Redhill, Surrey, showed a table of decorative Chrysanthemums, that included many choice single and other varieties. Among the large blooms were T. C. Brock, Bessie Godfrey, W. A. Etherington, W. Duckham, Miss Elsie Fulton, and other good ones.

The Vinerias, Limited, Acoc's Green, Birmingham, had a well-arranged group of outdoor Chrysanthemums, among which a yellow variety called La Pluie d'Or was very conspicuous. The plants were finely flowered, and the colours nicely arranged.

Messrs. Cilbran and Sons, Altrincham, exhibited a group of handsome Celosias and cut Chrysanthemums in variety. The latter included large-flowered sorts as well as decorative varieties. Among the singles were Emily Cilbran (pretty red-bronze), Miss Crispy (deep red), Ladysmith (rosy pink), Bronze Mary Anderson, and Mrs. B. Fletcher (white), all very pretty.

Messrs. Pewtress Brothers, Tillington, near Hereford, exhibited a collection of Apples, arranged with suitable decoration upon a table.

Messrs. Yates and Sons, Old Square, Birmingham, showed a good exhibit of vegetables that included well-developed Cauliflower, Allis Craig and Prizetaker Onions, White Turnip, &c.

Mr. J. G. Thompson, Handsworth, showed a collection of succulent plants, Cacti, &c.

Mr. J. Austin, Sparkbrook, exhibited a small group of Chrysanthemums in many of the best sorts.

A magnificent and finely arranged group of miscellaneous foliage and flowering plants was exhibited from the Highbury Gardens by Mr. J. Deacon, gardener to the Right Hon. Joseph Chamberlain, M.P. Begonias Gloire de Lorraine and Turnford Hall contributed largely to the display, while such plants as Lilium Harrisi, Chrysanthemums in great variety, Cyclamen, and Lilies of the Valley, together with suitable greenery, combined to make this display one of the most effective in the show.

Messrs. John Waterer and Sons, Limited, Bagshot, Surrey, showed a group of finely grown hardy shrubs and conifers. Particularly good were *Sciadopitys verticillata*, *Cedrus atlantica* glauca, *Thuja Lobbi* sebrina, standard Hollies, and Portugal Laurels and *Juniperus japonica* aurea.

Messrs. Richard Smith and Co., Worcester, also had a notable group of hardy shrubs, among which were such good things as *Picea pinasapo* glauca, *Thuja Lobbi* aurea, and *Elaeagnus aurea* variegata.

Messrs. Hewitt and Co., Solihull, also had a group of shrubs, as well as a bright display of Carnations.

Messrs. Thompson and Co., Spark Hill Nurseries, showed Chinese Primulas and a collection of miscellaneous greenhouse plants.

The Vinerias, Limited, Acoc's Green, sent a display of leaf skeletons.

Messrs. Gunn and Sons, Olton, showed a splendid lot of crosses and bouquets, and vases of Chrysanthemums.

Messrs. Denville and Co., Banbury, sent a brilliant lot of zonal Pelargoniums.

Messrs. W. B. Child and Co. and Mr. C. H. Herbert showed collections of hardy ornamental shrubs.

Mr. J. H. White, Worcester, showed a group of shrubs and hardy perennials.

From the Worcestershire County Council's Experimental Garden at Droitwich, Mr. Udale showed dried fruits and an object-lesson in the use of manures.

NATIONAL CHRYSANTHEMUM SOCIETY.

THE great autumn festival of this special society was held for the first time in the south transept of the Crystal Palace, and the accommodation there provided enabled the executive of the society to create a show of wonderful interest. Contrasted with the want of light and cleanliness of the Royal Aquarium, the present quarters of the exhibition compared most favourably, and everyone was ready to admit that so far as the actual place of exhibition is concerned the Crystal Palace is ideal. The competition in the respective classes was not as keen as usual, but this may be attributed to the season, which has caused many collections of blooms to damp, to the difficulty of access in the early hours of the morning, and to the new charge of an entrance fee in all classes. The show, as a whole, was very fine indeed, and the quality in many classes was superb.

The great vase class is the chief competition at these meetings, but this year there were only two exhibitors. A magnificent lot of blooms secured leading honours for Mr. Charles Beckett, gardener to Sir W. G. Pearce, Bart.,

Chilton Lodge, Hungerford. The finish of the blooms was superb, and they represented the highest cultural skill. The best varieties were Mr. F. S. Vallis, Mrs. F. S. Vallis, Mrs. J. Bryant, General Hutton, Mrs. Barklay, Mme. C. Naglemakers, J. R. Upton, and Mme. Paolo Radaelli. Mr. R. Kenyon, gardener to Mr. J. R. Twentymann, Monkhouse, Woodford Green, was a good second, having large well-finished blooms of good colour and capital form. Duchess of Sutherland, F. S. Vallis, and Lord Ludlow were three of his best sorts.

The only exhibit from the affiliated societies came from the Epsom and District Chrysanthemum Society, Mr. G. Hunt being responsible for all the blooms, i.e., twenty-four incurved and twenty-four Japanese, distinct. The Japanese blooms were nice and even, though not over large, and the incurved blooms were less even than usual.

The three competitors in the class for forty-eight Japanese blooms, distinct, made a fine display, and there was not much difference between them. First prize was won by Mr. W. Mease, gardener to Mr. A. Tate, Downside, Leatherhead, who showed well. Superb were the blooms of F. S. Vallis, Godfrey's Pride, Guy Hamilton, General Hutton, Mrs. Barklay, Mrs. F. S. Vallis, and Lord Ludlow; Mr. Kenyon was an uncomfortably close second; third, Mr. A. Jefferies, gardener to Mr. John Balfour, Moor Hall, Harlow, Essex. This exhibit was very bright and clean, but somewhat poor in places.

For Mr. W. J. Godfrey's prizes for thirty blooms in ten varieties of Japanese sorts sent out from his nurseries, there were two competitors. Mr. Kenyon was placed first with a heavy lot of highly-coloured blooms; second, Mr. Jefferies, with a much smaller series.

The class for twenty-four Japanese blooms, distinct, is always briskly competed, and on this occasion there were six individual displays. The premier position was occupied by Mr. Jefferies, who had a very even lot of blooms of good form and colour; the veteran Mr. W. Mease, was placed second with clean though rather smaller blooms; and Mr. J. Lock, gardener to Mr. Justice Swinfen-Eady, Otlands Lodge, Weybridge, third, many of his blooms being very handsome. An extra prize was awarded to Mr. George Hewitt, gardener to Mr. Charles E. Green, Theydon Grove, Epping.

Seven entries for twelve Japanese blooms, distinct, were in evidence, Mr. Hewitt taking premier honours with a fine set, although in some cases rather shallow in build; second, Mr. George Halsey, gardener to Mr. Jeremiah Lyon, J.P., Riddings Court, Caterham Valley, who ran the first prize-winner very closely; third, Mr. H. Smith, gardener to Colonel Bowles, M.P., Forty Hall, Enfield.

The class for a vase of six Japanese blooms, white, one variety only, found Mr. W. G. Prudden-Clark, York Road, Hitchin, leading with fine blooms of *The Princess*; second, Mr. G. A. King, gardener to Mr. Kennedy Jones, East Finchley, for *Nellie Puckett*; and third, Mr. George Wilson, gardener to Mr. E. T. Powell, Rose Dene, Christchurch Avenue, Brondesbury Park, N.W., with *Guy Hamilton*.

For a vase of six Japanese blooms, yellow, one variety only, Mr. Jefferies was first with six magnificent blooms of F. S. Vallis; fourth, Mr. A. King for *Le Grand Dragon*.

For a vase of six blooms, Japanese, any colour but white and yellow, Mr. Prudden-Clark was first with neat blooms of Mrs. George Mileham; second, Mr. George Halsey, with heavy blooms of the same variety as the first-named; third, Mr. Jefferies, for handsome blooms of *Edwin Molyneux*.

The four exhibits in the class for thirty-six incurved blooms, distinct, made a fine show of the Chinese type of the flower. Mr. W. Higga, gardener to Mr. J. B. Hankey, Fetcham Park, Leatherhead, for the sixth time in succession secured first prize and the Holmes Memorial Cup with very large, remarkably well-finished blooms of high quality. Charles H. Curtis, Mrs. Bernard Hankey, Frank Hammond, Duchess of Fife, Robert Petfield, George Haigh, and Islene were of the best. Mr. Mease was second with a good though rather uneven set of blooms, C. H. Curtis, Mrs. R. C. Kingston, and Lady Isabel being his best. Mr. G. Hunt, gardener to Mr. Pantia Ralli, Ashstead Park, Epsom, was third with a nice exhibit.

For the prizes offered by Messrs. Mackenzie and Moncur for six vases of incurved blooms, in six distinct varieties, there were three entries. Mr. Higga here again asserted his superiority by taking first prize with a magnificent series of vases. The blooms were large, globular, and splendidly dressed, showing the highest cultural skill—*Nellie Southam*, Charles H. Curtis, Mrs. Bernard Hankey, Duchess of Fife, Hanwell Glory, and Lady Isabel. Mr. Hunt was placed second, also with a nice lot of blooms, but of less quality than the leader; third, Mr. W. L. Bastin, who closely followed the last-named.

Of the three entrants in the class for twelve incurved, distinct, Mr. Bastin was a good first with beautifully finished blooms of good size.

The class for six blooms of one variety of incurved is always an interesting feature, the five exhibits on this occasion being very pretty. Six grand C. H. Curtis secured first prize for Mr. C. Lane, gardener to Mr. E. H. Coles, Burntwood, Caterham; second, unnamed; third, Mr. R. J. Jolliffe, Fern Bank, Bouchurch, Isle of Wight.

In the class for twenty-four large-flowered Anemone blooms, there were three entries, Mr. Charles Brown, gardener to Mr. R. Henty, Langley House, Abbot's Langley, Herts, being first, Le Chalonsale, Sir Walter Raleigh, John Buynan, M. Chas. Leboqz, and Lady Margaret being his best; second, Mr. J. Barrance, gardener to Mr. G. W. Taylor, Hadley Bourne, Barnet; third, Mr. A. C. Horton, gardener to Mr. H. H. Platten, Harwood Hall, Uxminster, Essex.

For twelve large-flowered Anemones, staged six blooms each in two vases, Mr. Barrance was placed in the premier position with some pretty blooms, Mr. Charles Brown following very closely.

For twelve large-flowered Japanese Anemones, distinct, six blooms in each vase, Mr. A. C. Horton was a good first with large blooms, splendidly developed; second, Mr. Brown, with a nice series; third, Mr. Barrance.

For nine varieties of Pompons, six blooms of each variety distinct, arranged in vases, there were three capital exhibits. First, Mr. Charles Brown, with a grand lot set up in bold and handsome bunches; second, Mr. T. Caryl, gardener to Mr. A. G. Melanor, Aldenholme, Weybridge, who followed closely, and Mr. George A. King a poor third. For six bunches of Anemone Pompons, six blooms in each bunch, distinct, Mr. Brown was again first with a charming lot. Mr. Barrance was a very good second, Mr. Astie in his display being very fine.

In the class for six varieties of singles, six blooms in each vase, distinct, there were three entries, and very fine they were. Mr. A. Dear, gardener to Mr. W. Jordan, Hill House, Palmer's Green, was a grand first, with large and handsome blooms. A good second was forthcoming in Mr. H. Reckes, gardener to Mr. G. W. Bird, Manor House, West Wickham, who staged finely; third, Mr. W. C. Pagram, gardener to Mr. J. Courtenay, The Whim, Weybridge.

FLORAL DECORATIONS.

The four contestants for three *epergnes*, arranged with Chrysanthemums and appropriate foliage for decorative effect, made an attractive display. Miss C. B. Cole, The Vineyards, Feltham, was placed first. Mr. D. B. Crane, Highgate, N., was second with a pleasing arrangement. The third prize was won by Miss Mary H. J. Anstey, West Norwood.

For a vase of six Japanese blooms, one variety only, for decorative effect, Mr. W. Burrell, gardener to Mrs. R. Thornton, The Hoo, Sydenham Hill, was deservedly placed first; second, Mr. George King.

Reflexed blooms were represented by two exhibits, each of twelve blooms in a vase. Mr. Charles Brown was placed first, and Mr. Barrance second.

Hairy-petalled Japanese in vases, six blooms in each, had but one representative, and this was a poor lot, and came from Mr. Jolliffe, who was awarded third prize.

THE PERCY WATERER CHALLENGE CUPS.

The first class is open to amateur gardeners who employ no paid assistants. The class is for a table 6 feet by 3 feet, on which is to be displayed the different types of the decorative Chrysanthemum. There were four competitors, Mr. D. B. Crane being first. Mr. Crane now wins the cup outright, having won the same last year. Second prize was won by Mr. P. L. Johnson, North Gate, Bishop's Stortford.

The cup awarded to ladies for a similar class was won by Miss Mary H. J. Anstey, who really made a table decoration, and represented but two types of the flower only. Mrs. D. B. Crane, the winner of last year, was placed second.

Miss Norman Davis, Framfield, Sussex, again excelled in a gorgeous circular group of Chrysanthemums, all types of the flower being well displayed. Vases of specimen blooms of high quality, pleasingly interspersed with *Crotons*, *Fatsia*, and other foliage plants, made a fine effect, and easily won first prize for this well-known grower. A truly noble group won second prize for Messrs. John Peed and Son, Kew Park Nurseries, West Norwood, S.E., whose display was one of this firm's best efforts.

PLANTS.

There was but one exhibit in the class for six bush-trained specimens, the exhibitor, Mr. H. Smith, well deserving the first prize awarded to him. The plants were splendidly grown, each one bearing grand blooms, large and full. *Nellie Puckett*, *Phœbus*, *Souvenir de Petite Amie*, and *John Shrimpton*. The same grower was first for a single specimen with a well-grown plant of *Amy Ensell*.

MISCELLANEOUS EXHIBITS.

Mr. H. J. Jones, Ryscroft Nursery, Lewisham, won a large gold medal for a superb table of cut Chrysanthemums, in which new and old sorts of all types were grandly represented. Mrs. J. Dunn is a grand new Japanese white sort, and this was certificated. The singles were also excellent.

Messrs. J. Ambrose and Son, Chessunt, Herts, had a large group of Roses in pots, *Lily of the Valley*, *Cyclamen*, and foliage plants pleasingly disposed, for which they were awarded a silver medal.

Messrs. T. Rochford and Sons, Limited, Broxbourne, richly merited the gold medal for their beautiful display of related Lilies, all flowering profusely, and rendering the air pregnant with their perfume. *Azalea Mollis* was also done well.

Hobbies Limited, Dereham, put up a huge table of specimen Chrysanthemums, Tea-scented Roses in spray, and double zonal Pelargoniums, as well as decorative Chrysanthemums, for which a gold medal was awarded.

Messrs. H. Cannell and Sons had one of their superb groups of Cannas, specimen Chrysanthemums of up-to-date sorts, decorative varieties also playing an important part. *Gloire de Lorraine* and *Turnford Hall* Begonias were finely represented, as were an immense array of zonal Pelargoniums of the very best sorts. Large gold medal.

A silver-gilt medal was secured by Messrs. J. Peed and Son for Begonias *Gloire de Lorraine* and *Turnford Hall*, a large table being well filled.

Messrs. James Vetch and Sons, Limited, Chelsea, had one of their inimitable displays of Begonias of single, double, and semi-double forms. This was a most attractive feature and well merited the gold medal awarded to it.

From Mr. John Russell, Brentwood, came a charming collection of hardy shrubs, and a welcome feature they were amid all the rich colouring of the flowers. Silver-gilt medal.

Messrs. J. Cheal and Sons, Crawley, had a capital collection of Apples, quite remarkable for the present year. They were representative, of good colour, and a fine sample. Bunches of richly-coloured shrubs and trees were pleasingly interspersed. Silver-gilt medal.

Mr. W. J. Godfrey, Exmouth, secured a gold medal for a grand table of Chrysanthemums in a cut state, in which the newer sorts played an important part. Carnations were also well staged by this exhibitor.

Laves Horticultural Manures displayed their wares, and the Ichthemio Guano, by Mr. W. Colchester, also made a display.

Messrs. William Cutbush and Sons, Highgate, and Barnett, Herts, made a fine exhibit of alpine and bulbous plants, together with a very bright array of winter-flowering carnations and Lobelia tenuifolia, and rightly merited the gold medal awarded. From the same firm came a grand group of retarded Lilies in variety, Salvia, Begonia, Spiraea, Erica in variety, and pleasing foliage plants.

Carnations from Messrs. George Boyes and Co., Leicester, were very good, the colours being very vivid and striking, and their effect delightful. A silver-gilt medal was not a too generous award.

Mr. J. Williams, Oxford Road, Ealing, W., exhibited his pretty rustic table decorations, which were much admired.

A beautiful table of Ericas, set up by Messrs. Gregory and Evans, Sidcup, was an attractive feature. The new Heath (*Erica gracilis nivalis*) on this stand received a first-class certificate from the floral committee.

The classes confined to amateurs and maiden growers were well contested, and blooms of splendid quality were frequently in evidence. Vegetables in competition for the splendid series of prizes offered by Messrs. Webb and Sons, Southbridge, and Mr. Robert Sydenham, Birmingham, respectively, were a fine feature of the great show, and the visitors showed their appreciation of all they saw in these displays by incessant exclamations of surprise. Grapes were well shown, and the arrangement of the whole show reflected considerably to the credit of Mr. Richard Dean, who was responsible for its disposition.

ROYAL HORTICULTURAL SOCIETY.

ORCHID COMMITTEE.

PRESENT: H. J. Veitch, Esq. (chairman), Messrs. J. O'Brien, E. Ashworth, W. B. White, W. H. Young, W. Boxall, H. J. Chapman, T. W. Bond, J. Charlesworth, A. A. McBean, F. W. Ashton, A. Hishop, J. Colman, G. F. Moore, J. Wollesley, W. Cobb, H. Ballantine, and W. A. Bilney.

Messrs. James Veitch and Sons, Limited, had a very pretty group, in which were some of the finest varieties of *Laelio-Cattleya*, among them *Digbyano-Trianae*, *Violetta splendens*, *dominiana* var. *Langleyensis*, *Cattleya Fabia*, and *C. Mantini*. The group also included *Cypripedium insignis* Sanders and a fine example of *C. insignis* Harefield Hall var. *Silver Flora* medal.

M. A. A. Peeters, Chaussée de Forest, Brussels, sent some very fine *Cattleya*, chiefly hybrids, raised by M. Peeters, *C. hardiana* alba (Peeters var.), *C. Peetersii*, *C. Fabia* var. *Mary de Wavrin* [*C. labiata* alba X *C. aurea*], *Laelio-Cattleya* *Henry Greenwood*, L.-C. *gracilis*, *Cypripedium tosum* X *spicatum* var. *Mme. J. Hye*, *Odontoglossum crispum* var. *francisi*, and other good things. *Silver Flora* medal.

Messrs. Hugh Low and Co. had in their group *Cattleya labiata* *ameiiana*, almost white, with a faint bluish mauve tint and rosy mauve lip; *C. dowiana*, and *dowiana* *rosetta*, a fine variety; *C. labiata* *glauca*, a very distinct shade of bluish grey; *Laelio-Cattleya* *King Victor*, a deep-coloured variety; *Cypripedium Ajax* (pollettianum X *lawrencianum*), *Oncidium Forbesii* *splendens*, and *Oncidium varicosum*. *Silver Flora* medal.

Messrs. Sander and Sons showed a handsome group, chiefly *Cypripediums*, comprising a large number of beautiful hybrids; *C. Niohe*, *C. Memoria* *Moenali*, *C. Triumphans*, a very fine var. *C. Fred Hardy*, *C. Chantini* *Lindeni*, *C. gigas* *magnificum*, and *C. Hitchinsii*. The group also included some good *Zygopetalums*, *Laelio-Cattleyas*, and other choice Orchids. *Laelio-Cattleya luminosa* was finely shown. *Silver Flora* medal.

J. Bradshaw, Esq., The Grange, Southgate (gardener, Mr. George G. Whitelegg), sent *Cattleyas*, together with some *Oncidium varicosum*, *O. Forbesii*, and a grand *Cymbidium truncatum*. In the *Cattleyas* the original form of *labiata* *ameiiana* and a hybrid *Mrs. J. W. Whiteley* were very good. *Silver Flora* medal.

Messrs. Charlesworth and Co., Bradford, exhibited a group of choice things, including *Laelio-Cattleya luminosa*, *Cattleya* *Lord Rothschild*, *Laelio-Cattleya blancheyensis*, L.-C. *Cappel*, small, deep amber flowers, crimson lip; *Odontoglossum crispum* *trianae-roseum*, a fine rose-shaded spotted var.; *O. Salicrispum*, pale creamy-yellow, beautifully spotted; *O. Harryana* *triumphans*, and other choice sorts. *Silver Flora* medal.

From H. G. Bischoffshelm, Esq., *Cattleyas* were again the feature. *C. aurea* was in fine form, and there were *Odontopogonums*, *Cypripediums*, with a good display of *Cattleya labiata*. *Silver Banksian* medal.

FRUIT COMMITTEE.

Present: George Bunyard, Esq. (chairman), Messrs. J. Cheal, S. Mortimer, H. Ealing, A. Dean, J. McIndoe, G. Kelf, H. Markham, G. Reynolds, G. Wythes, F. Q. Lane, J. Willard, G. Norman, J. H. Veitch, and W. Poupard.

There was little before this committee, and the only award made was for an unnamed seedling Melon from Captain Holford. This was a green-fleshed variety with a pale netted skin, deep flesh of fine flavour.

From Mr. Allen, the Gardens, Ganton Park, came a good Apple, *Norfolk Beauty*, a large, rather flat fruit, with a clear yellow skin. It looked a promising variety.

Messrs. G. Ambrose and Son again showed their new Grape *Melton Constable* in very good form.

Messrs. Cooper, Taber, and Co. exhibited a long white Japanese Radish, which in appearance closely resembled the early Turnips we get from France.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), Messrs. George Nicholson, C. T. Drury, James Walker, Anne Perry, J. Jennings, William Howe, G. Reuthe, C. R. Fielder, Charles Dixon, Charles Jeffries, H. J. Cutbush, Charles E. Pearson,

Charles E. Shea, W. P. Thomson, E. H. Jenkins, William J. James, J. W. Barr, Edward Mawley, R. W. Wallace, and the Rev. F. Page Roberts.

From Miss Adamson, South Villa, Regent's Park (gardener, Mr. George Kelf), came a very fine group of Palms, *Poinsettias*, *Begonias* of the Lorraine section, *Crotons*, *Dracenas*, and other serviceable material of a similar nature. *Chrysanthemums*, too, were finely shown, such as *M. Gustave Henry*, *C. H. Curtis*, *Phobus*, *Miss A. Byron*, white, and *Mrs. Greenfield*, yellow. These latter, inserted in a setting of *Crotons*, were very attractive. Many graceful Ferns were also used, the grouping as well as the merit of the exhibits reflecting considerable credit on those responsible. It is worthy of note that the plants were grown within two miles of Charing Cross. *Silver Flora* medal.

A large exhibit of cut *Chrysanthemums* came from Lady Plowden, Aston Rowant House, Oxon (gardener, Mr. Clarke). Some of the best things in the group were the cream sport from Nellie Pockett, Lovellness, yellow; *Mrs. Mease*, very fine; *Mme. Carnot*, extra good; *Mrs. G. Neville*, white, very large; *Eva Knowles*, bronze chestnut, &c. There were also many single kinds shown, as also decorative kinds, few of which were named. Some capital plants in pots were the single *F. W. Smith*, mauve-pink, and *Belle of Weybridge*, red-crimson, both kinds very free in flowering. *Silver Banksian* medal.

A large collection of Gourds, Fungi, autumn foliage, and single *Chrysanthemums* came from F. W. Smith, Esq., The Hollies, Weybridge, Surrey. It was an exceptional exhibit, such, indeed, as is rarely seen at the Drill Hall meetings. A good deal of material was employed, and considerable intelligence displayed in the setting up, as also the gathering together of so large a mass of material. As an object-lesson of the effective character of quite ordinary materials when grouped and the rich colouring of the foliage of autumn it was quite a success. *Silver Banksian* medal.

Messrs. T. S. Ware, Limited, Feltham, Middlesex, had a remarkable display of cut hardy flowers. For November 10 we think it worthy to mention that *Galliardia*, *Lychnis vespertina* plena, *Lobelia*, *Verbena venosa*, *Potentilla formosa*, *Chrysanthemum latifolium*, *Gladiolus* in great variety, *Senecio pulcher*, *Coreopsis*, *Tritomas* in great masses, *Michaelmas Daisies*, *Pampas Grass*, *Sidalcea hybrida* *Rosey Gem*, *S. candida*, a big lot of *Pentstemons*, and a collection of outdoor *Chrysanthemums* were among the things shown. *Nerines*, *Anemones*, and many pans of *Cyclamens* were also noted.

A small collection of plants, including *Maranta plectra*, *M. insignis*, *Sesingella africana*, *Ceropegia Woodii*, *Lamprococcus* *Wellbachii*, *Aralia elegantissima*, and *Polypodium tridoides* *ramo-cristatum* came from Messrs. W. Bull and Sons, Chelsea.

Messrs. J. Cheal and Sons, Crawley, contributed a small but showy lot of cut sprays of autumn foliage. *Acers*, *Berberis Aquifolium*, *Rhus typhina*, *Quercus palustris* (very fine), *Azalea mollis* in splendid colour, *Prunus Pissardi*, *Perneytia speciosa* in fruit, *Ribes aureum* with crimson leaves, *Quercus americana* *coccinea*, and *Euconymus europaeus* in fruit were some of the most showy.

Messrs. James Veitch and Sons, Limited, Chelsea, showed coloured leaves of the new Chinese Vines to demonstrate the autumn colouring of these plants, *V. armata* and its variety *Veitchii* are perhaps the finest of the large-leaved section, the colour varying from crimson to purple. *V. Romanetti*, a purple self, is also effective, and *V. henryana*, with digitate leafage, is distinctly veined; a very interesting exhibit.

Messrs. Veitch and Sons, Limited, Chelsea, had a capital display of zonal *Pelargoniums* in pots, about 100 plants were shown. These were remarkable for size of pip and rich colouring. Some good things are *Lady Roscoe*, pink; *Mrs. Brown Potter*, *Mrs. Ewins* salmon; *J. M. Barrie*, cerise; *Mary Seaton*, crimson; *Niagara*, white; *Mme. Charlotte*, salmon; *Mrs. G. Cadbury*, salmon orange; *The Mikado*, rose-cerise, very large; *Cerise*, salmon-cerise, very good form; and *Gustav Ewick*, rich scarlet. *Silver Banksian* medal.

A group of *Nerines* from Mr. O. Reuthe, Keston, Kent, included a large variety of colour, salmon, scarlet, orange, &c. *N. elegans* alba was also freely shown.

Messrs. W. Wells and Co., Limited, Redhill, set up a formidable group of *Chrysanthemums* of all sections, i.e., large flowered, singles, decorative sorts, &c. In the large-flowered lot we noted *W. R. Church*, King of Yellows, *Mrs. J. Seward*, gold incurved; *Cecil Cutts*, deep yellow; *Mrs. F. Hudson*, pure white; *Godfrey's Pride*, terra-cotta; *Bessie Godfrey*, fine yellow; *W. Higgs*, bronze orange; *General Hutton*, rich yellow, large; *W. Duckham*, splendid silvery mauve, fine broad incurving florets; *T. C. Brock*, bronzy red and crimson incurved; *Meratham Red*, very fine; *Mrs. Barnard Hankey*, bronzy red; *Donald McLeod*, rich yellow; and *Mrs. Harry Eland*, an *Anemone*-flowered sort, being among the best. Several seedlings of merit were also shown, the whole making a most imposing display. *Silver Flora* medal.

Mr. George Prince, Longworth, Berks, set up a superb gathering of *Roses*, *The Bride*, *Sunset*, *Caroline Testout*, *Souv. de S. A. Prince*, *G. Nabonnand*, *Corallina*, *Mme. Lambert*, *White Maman Cochet*, *Mrs. J. Laing*, and *Maman Cochet* being in splendid form for so late a date as this. There were also many *Monthly Roses*, and the whole were stated to be cut from the open air. A most attractive exhibit. *Silver Banksian* medal.

Mr. J. Russell, Richmond, again showed a group of hardy shrubs in pots, as *Acubas*, *Skimmias*, *Eurya latifolia* variegata, *Viburnum Awafurki* with red foliage, *Ivies* in pots, *Euconymus*, and such like in great numbers. *Silver Banksian* medal.

Mr. J. Ambrose of Chesshurst contributed an interesting group of pot plants, as *Heaths*, *Azalea mollis*, *Crotons*, *Roses* in pots, *Lily of the Valley*, *Ferns*, *Spiraea japonica*, *Trees* *Carnations*, and other such things in variety.

A group of hardy plants from Messrs. William Cutbush and Sons, Highgate, included *Kniphofias*, *Schizostylis coccinea*, double *Cambrian Poppy*, *Skimmias*, *Crocus ochroleuca*, *Primula acaulis rubra plena*, and with numerous

Sarracenas, *Shortias*, and others contributing their rich foliage a good display was made.

Messrs. J. Hill and Son, Edmonton, had a fine exhibit of Ferns, in which many large plants of *Acrostichum crinitum* were seen. Large examples, too, of *A. aureum*, *A. viscosum*, *A. sorbifolium*, and *A. quercifolium* were also included. A group adjoining was wholly composed of *Asplenium nidus*, and arranged on the floor with a margin of smaller plants and variegated *Ficus* the effect was very good. The broad and handsome shining leaves render this one of the most striking and ornamental of the whole family of Ferns. *Silver Flora* medal.

A fine white *Chrysanthemum* *Mrs. James Dunn* was shown by Mr. G. Carpenter, West Hall, Byfleet. It is a drooping kind, very large, with slight creamy centre.

Chrysanthemum *Distinction*, a sport from *Lily Mountford*, was exhibited by Mr. Dean, Camiobury Park Gardens, Watford.

Crocus caspius, a white-flowered species, *C. c. var. Hiacinus*, and *C. Cambesidei* were from E. Augustus Bawles, Esq., Myddleton House, Waltham Cross.

A small group of *Nerines* came from Mr. J. T. Bennett-Poë of Chesshurst.

Samples of wood painted with the new "Lubross" Paint were on view, the samples, having received two coats, displaying a surface almost equal to varnish. It is said to wear extremely well in the most exposed positions.

AWARDS.

Nerine *Miss Woolcard*.—A beautiful large-flowered *Nerine*, deep salmon with rosy veins. Award of merit.

N. Mrs. Moore.—A very striking flower of a crimson-carmine shade, the flowers nearly erect. Award of merit. Both of the above novelties were from J. T. Bennett-Poë, Esq., Chesshurst (Mr. Downes, gardener).

Chrysanthemum *Kitty Bourne*.—A single-flowered sort of a rich golden hue. It is very showy, 3 feet high, the flower heads all coming to one level, or nearly so. Award of merit. From Messrs. W. Wells and Co., Limited, Redhill.

Chrysanthemum *W. A. Etherington*.—A Japanese of the largest size, the pink shade being in every way good, while the flower is of massive build throughout. Award of merit from Messrs. W. Wells and Co., Limited, Redhill.

In the afternoon Mr. E. T. Cook, Editor of THE GARDEN, gave a lecture upon "The Advantages and Evils of Size in Flowers, Fruits, and Vegetables." Sir Trevor Lawrence, Bart., presided, and there was a good attendance.

ROYAL HORTICULTURAL SOCIETY OF IRELAND.

The winter show of the Royal Horticultural Society of Ireland was opened on the 4th inst., in the Royal University Buildings, Earlsfort Terrace. His Excellency the Lord Lieutenant, who was accompanied by Lord Plunket, C.V.O. (Private Secretary), and attended by Major O'Brien, A.D.C., visited the show during the day, and was received by Sir James Creed Meredith, LL.D. (representing the Senate of the Royal University), and Mr. Henry P. Goodbody, Mr. Ernest Bewley, Surgeon-General Beaumont, Mr. D. Ramsay, J.P., and Mr. Walter Keatinge, jun. (representing the Royal Horticultural Society). His Excellency spent some time inspecting the various exhibits.

The arrangements for the show were capitally carried out by the secretary and the members of the committee. The central hall was devoted to the cut bloom and flower section, while the large examination hall was practically filled with some beautiful collections of all kinds of vegetables and fruits grown at this season in Ireland. It was stated that the number of exhibits was somewhat smaller than that of last year, this being mainly due to the fact that the number of classes was reduced in the section for cut blooms, and that the wretched weather which prevailed during the year was most disappointing to fruit growers and vegetable cultivators. Notwithstanding this latter drawback the specimens exhibited were extremely fine and received very favourable comment. The judges for the cut blooms were Messrs. Goff and Gregory, and for the fruit and vegetables Messrs. Tyndall, Orr, and Knowlind. Mrs. Hume Dudgeon placed the winners in the table decoration competition, a class which was regrettably small.

There was a magnificent selection of flowering plants sent in by Lady Ardilaun, including some remarkably fine *Cyclamens*, and a gold medal was recommended. The professional firms of growers were very well represented—Messrs. Dickson, Newtownards, showed a splendid collection of fruit, and were recommended for a gold medal. A similar distinction was given to Messrs. Ramsay and Son, of the Royal Nurseries, Ball's Bridge. This firm showed a collection of floral designs, comprising bouquets, anchors, crosses, and a handsome collection of *Chrysanthemums*, all arranged with fine taste, while the group of foliage and flowering plants was also most effective. Messrs. Tait and Co. were highly commended for an exceptionally deserving stand of various kinds of vegetables; and Messrs. Edmondson and Co. for a most attractive table of Pears and Apples. Messrs. Watson and Sons of Clontarf were recommended for a silver medal for a group of early-flowering *Chrysanthemums*. In the examination hall, Messrs. Jameson, Royal Nurseries, Sandymount, had a handsome display, showing floral designs and a number of flowering plants. A gold medal was recommended for the former. The firm of Sir James W. Mackey and Co., Sackville Street, exhibited a varied and interesting collection of vegetables and fruit and choice seed Potatoes, among which were the famous Northern Star and Evergood. The selection of hardy fruits was very fine considering the season, and the firm was awarded a gold medal. The Challenge cup, valued at ten guineas, and presented by Messrs. Waterhouse and Co., Dame Street, for *Chrysanthemum* blooms in twelve vases and twelve varieties of three blooms each, was awarded to Mr. John Jameson, St. Markock's, Malahide (gardener, Mr. J. M. Keller).—*Irish Times*.

PLYMOUTH.

THE West of England *Chrysanthemum* Society held their show as usual in the Guildhall on the 3rd and 4th inst. If

the entries were not quite so numerous as in some seasons past, the quality of the exhibits was quite up to the average, especially when the untoward weather experienced is taken into account. The groups of miscellaneous plants arranged in the centre of the hall made a fine display; the Chrysanthemum groups around the sides of the hall also were effective. The cut blooms were placed on cross tables in the hall; altogether it was a pretty display. Mr. C. Wilson, hon. secretary, and an efficient committee, worked hard to make the show what it was—a success.

Cut blooms were an important feature. The principal class was that for forty-eight Japanese in not less than twenty-four varieties and not more than two of any one variety. For the first prize of £10 four competed. Mr. F. S. Vallis, Bromham, Wilts, won the coveted position with an exhibit of blooms which, if not large, possessed much quality, and were well staged; Mr. Drake, 44, Cathays Terrace, Cardiff, was a good second with rather smaller blooms but good in colour and capitally staged; Mr. G. Foster, Giendana Gardens, Teignmouth, was a close third.

No less than seven competed for twenty-four Japanese. Mr. Vallis again winning premier place with a characteristic exhibit; Mr. Brimicombe, gardener to J. R. Gelson, Esq., Teignmouth, was a close second; Mr. Harding, gardener to T. Martin, Esq., Trevorbyn, Plympton, third.

A class was set apart for Japanese incurved varieties, but the results were far from satisfactory; the blooms were not typical examples. Mr. Brimicombe was awarded first place, Mr. Foster second.

For six any white-flowered variety of Japanese there was brisk competition. With the variety Mrs. J. Lewis in good condition, Mr. Mavis, gardener to Sir J. Shelley, Shodbrooke Park, Crediton, was first; Mr. Brimicombe with the same variety coming next in order; Mr. Foster with *Mme. Carnot* third.

For six any other colour, yellow-flowered varieties were prominent, General Hutton winning the premier place; Mr. Harding, gardener to T. Martin, Esq., Plympton, second, with *Mrs. Mease*; Mr. Foster with uneven examples of *F. S. Vallis* coming third.

Single-flowered varieties were but poorly represented, Mr. F. Clatworthy, gardener to F. Bradshaw, Esq., Lipton Park, was first.

Classes for exhibitors within a radius of fifteen miles from Plymouth were numerous and well filled. For twenty-four Japanese in not less than eighteen varieties there was a keen competition for the leading prizes, Mr. Harding winning with a capital exhibit; Mr. H. Doud, gardener to G. F. Winnicot, Esq., Rockville, second.

For twelve blooms, Mr. J. C. Boulds, 6, Albermarle Villas, Stoke, won quite easily with heavy blooms; Mr. Harding, second.

For six Japanese, Mr. Boulds was again successful with popular varieties in capital condition.

Plants were not numerous but good. For a group of Chrysanthemums and foliage plants at the back with Ferns at the front there were three entries. The premier award went to Mr. R. G. Thorn, gardener to Mrs. Upton, Cotterell Dorney, Stoke, for dwarf plants thickly clothed with healthy foliage and carrying handsome flowers; Mr. J. Hoskins, gardener to Dr. Aldous, Charlton House, Mannesland, second, with a good arrangement of smaller flowers.

Messrs. John Webber and Sons, Walstone Nursery, Plymouth, won the first prize for a group of miscellaneous plants in which Orchids, Chrysanthemums, Crotons, &c., figured well; Mr. Selby, gardener to Admiral Parker, Delamare, Cornwood, second; Mr. Thorne third.

Floral exhibits were numerous and good, a like remark applying to vegetables and fruit. Want of space, however, forbids a further notice.

BRIGHTON CHRYSANTHEMUM SHOW.

THIS important southern show was held in the Pavilion on the 3rd and 4th inst., and compared favourably with its predecessors; many fine blooms were exhibited.

Mr. G. Sims, gardener to E. A. Walter, Esq., Brighton, won first prize for a group of Chrysanthemums; Mr. E. Head, Hove, was second; and Mr. J. Hill, gardener to W. Clarkson Wallis, Esq., Withdean, third. For a group arranged by gentlemen's gardeners only, Mr. A. J. Blake, The Gardens, Bleak House, was first; Mr. W. Henderson, second; and Mr. G. Norman, Withdean, third.

In the cut bloom classes the chief interest centred in that for thirty-six Japanese, the winner of the first prize and silver bowl being Mr. J. Harris, gardener to Colonel Henty, Avesford, Arundel, who showed an excellent lot of blooms; Mr. C. J. Dicker, gardener to the Hon. Miss Canning, Frant Court, was second; and Messrs. J. Stredwick and Sons, St. Leonards, third.

The vase class, for five vases, each containing five blooms of Japanese, provided a very good display. Messrs. J. Stredwick and Sons, St. Leonards, were first with fresh and first-rate blooms, Mr. Dicker being second, and Mr. J. E. Hickson third.

Twelve incurved blooms: First, Mr. R. Vinall, Horsham, with well-formed blooms of the best varieties; second, Mr. Hunt, Reigate; third, Mr. Tourle.

Six Japanese blooms: First, Mr. Harris; second, Mr. Duncan; third, Mr. Dicker, all showing well.

The class for six Japanese of one variety usually makes a good show, and this occasion was no exception. Mr. Duncan was first with excellent blooms of *Mrs. Mease*; Mr. Dicker second, with *Mrs. G. Mileham*; and Mr. Hart was third, with *Nellie Pockett*. For six incurved blooms (one variety), Mr. Hart was first with *C. H. Curtis*.

Mr. J. C. Hickson was the most successful exhibitor of single varieties, and showed some very pretty bunches. Mr. Hart was second, and Mr. Alfred Slaughter third. The table decorations of Chrysanthemums were very bright, Miss Howell, Brighton, being the first prize-winner.

Mr. W. E. Anderson was first for four standard Chrysanthemums; second, Mr. J. Hill; and Mr. Lambert won chief honours for pyramid plants. Mr. Anderson was again first for dwarf-trained plants, and Mr. Lambert for Pompons.

For bush plants Mr. Lambert won, and Messrs. Anderson and Blake were second and third respectively.

FRUIT.

Three bunches of white Grapes: First, Mr. W. Taylor, Tewkesbury Lodge Gardens, Forest Hill; second, Mr. W. Kemp, Coolhurst Gardens, Horsham; third, Mr. Simmons, Polegate. Mr. Simmons was first in the class for black Grapes, Mr. Laker, Chesswood Road, Worthing, being second, and Mr. A. Kemp third.

Mr. Thomas, Wannock Gardens, Polegate, was first for four dishes of dessert Pears, Mr. Hickson being second, and Mr. Norman third.

Four dishes of dessert Apples: First, Mr. Duncan, with splendid fruits; second, Mr. Thomas; third, Mr. A. H. Parsons. Messrs. R. F. Blake, Anderson, Thomas, Harris, and Hickson were among the successful competitors in the fruit classes.

Mr. W. Manton, The Grange Gardens, Hurstpierpoint, won the first prize (given by Messrs. Cheal) in the competition for a collection of vegetables. Mr. Tourle was second, and Mr. Cornish third.

Among non-competitive exhibits, Messrs. W. Balchin and Sons, Hassocks Nurseries, had a handsome group of miscellaneous plants. Messrs. Wells and Co., Earlswood, Redhill; Messrs. J. Peed and Son, West Norwood; and Mr. J. Miles, Victoria Nursery, Dyke Road, also exhibited.

Winter protection.—It is conclusive evidence of the absence of frost that we have Dahlias (one of the tenderest of our summer plants) growing and blooming profusely outdoors as late as the second week in November. But whether this absence indicates a mild or severe winter later no one can tell. In previous years, cold, wet summers have been conducive to extremely severe winters, and it will be wise for us all in the matter of protection to err on the safe side, and as far as may be practicable be ready for the frost should severe weather set in. The soil is very wet and unusually cold, and hard frost would be for that reason exceptionally penetrating. It will be wise therefore to have at hand plenty of dry straw litter, of Fern, Heather, Mats, or other material, using soil moulded well up also, to give such protection as can be furnished by its aid.—A. D.

Royal Agricultural Society.—At a meeting in London recently of the council of the Royal Agricultural Society it was reported that the first show held at the permanent Show Yard, Park Royal, last June, was likely to result in a loss of nearly £10,000. The expenditure was much increased by the abnormal weather and by difficulties incident to a new site, while the receipts were disappointingly small. The sites committee recommended that the effective administration of Park Royal would best be secured by making it a separate undertaking from the society's ordinary operations. While remaining under the general jurisdiction of the council, its detailed administration would be entrusted to a small number of persons appointed by the council and removable by them. The committee thought the best way of arranging this would be to create and register a private company, which might be called "Park Royal, Limited." The recommendations were agreed to.

Scottish Horticultural Association.—The monthly meeting of this society was held in Dowell's Rooms, George Street, Edinburgh, on Tuesday, November 3, when there was a very large attendance of members, presided over by Mr. J. W. M'Hattie, the president of the association. The paper of the evening was read by Mr. Peter Loney, the secretary, in the absence of Mr. C. Webster, The Gardens, Gordon Castle, Banffshire. Mr. Webster's subject was "Notes on some of the Newer Sorts of Hardy Fruits," and it was dealt with in a valuable manner, much information being given upon some of the more recently introduced fruits. A summary cannot do justice to the character of the paper, which will be published in the Transactions of the association. Mr. Webster was awarded a hearty vote of thanks. There were a number of exhibits in the room, including Chrysanthemums from Messrs. James Grieve and Sons, Pilrig Nurseries; Messrs. Todd and Co., Shandwick Place; Mr. Lamont, Ashley Terrace; and Mr. Fraser, Kilravock. Mr. Todd showed capital Roses from the open from Musselburgh, and Mr. George Brown, Silverknowes, a vase of good blooms of *Rose Caroline Testout*, also from the open. Other exhibits came from Mrs. Algie, Togher House, County Mayo; Mr. Fraser,

Cramond; and Mr. Henderson, Monkwood. Not the least interesting were the Apples, Pears, and Plums, sent by Mr. Webster, Gordon Castle.—S.

OBITUARY.

MR. WILLIAM OSBORNE.

ON Friday, October 30, this well-known gardener succumbed to a complication of diseases accelerated by cancer of the liver. Mr. Osborne had only two years previously retired from his forty years' charge of the famous gardens of A. H. Smith-Barry, Esq. (now Lord Barrymore), at Fota Island, Cork. Here he made a special study of hardy trees and shrubs, and had a most extensive knowledge of Bamboos, Eucalypti, and Aquatics. The beautiful *Magnolia Campbellii*, which bears the largest and most handsome flowers of its genus, first flowered in our country under Mr. Osborne's care at Fota. Some years ago Mr. Osborne was sent by his employer to Algiers to lay out an estate there which Mr. Smith-Barry acquired for the winter months. This work Mr. Osborne performed with that conspicuous success which attended all his efforts. The deceased was of a very active temperament, and had a most kindly disposition. In addition to his almost unique knowledge of Bamboos, Eucalypti, &c., he had a good practical knowledge of horticultural buildings.

MR. E. SUMMERS.

ON the 31st ult., at Stoke Gifford, in his eighty-fourth year, through being knocked down by a cyclist, Mr. E. Summers, who for upwards of forty-six years was foreman of the Stoke Gifford Nurseries of the late Messrs. William Maule and Sons, Bristol.

* * "Answers to Correspondents" and reports of *Herod* and other shows are unavoidably held over until next week.

TRADE NOTE.

FUEL ECONOMISERS.

MESSRS. GEORGE COTTON AND CO., LIMITED, Holmes Chapel, Cheshire, have patented several accessories which when fitted to boilers lessen the amount of fuel consumed to a very appreciable extent. This is a most important matter to those who have a number of glass houses to heat by means of hot water, for the fuel consumed is always a heavy item of expense. Numerous gardeners and growers have tried Messrs. Cotton and Co.'s Patent Fuel Economisers, and have found them to be of the greatest value, for while effecting an economy in the amount of fuel consumed, the heating surface of the boiler is also largely increased. For instance, at the Royal Horticultural Society's Gardens at Chiswick one of these economisers has been tried, and with the most satisfactory results. The fuel consumed was found to be one-third less, and the temperature 10° to 15° higher than before the economiser was fixed. The patent trays are of various designs, and can be made to fit any boiler. They are used in the place of fire blocks, with returns either on top or underneath as required. A tray adds 30 feet to 40 feet of additional heating surface. One tray is specially assigned for top-feed or centre fire tubular boilers. By Stubb's Patent Waterway Smoke Flue or Cylindrical Boiler three boilers can be heated from one fire box. In addition to the tray placed over the boiler a waterway tube can be fixed between the boiler end and the chimney. Now all gases, after acting on the boiler and tray, pass through a waterway flue, jacketed with 2 inches of water, before escaping up the chimney. The tube has its own flow and return pipes connected to the boiler system, or both tray and tube can be arranged to work as a system of their own, independent of the boiler over which they are placed. The new oxidiser or smoke consumer is another patent contrivance. When fitted to the front of the boiler each time the fire is stoked the user has only to fill the small water-can from the tank beneath and attach it to the arm of the oxidiser. The weight of the can filled with water opens the valve and admits air into the fire, which ignites the smoke, removing the nuisance by burning the gases; it also adds greatly to the heating power of the boiler. As water runs back into the tank from which it was taken the valve gradually closes. When these patent fuel economisers become more widely known and adopted they will in a great measure revolutionise the heating of glass houses.

GARDENING APPOINTMENT.

MR. PALMER, for some years head gardener to the Earl of Warwick, Warwick Castle, has been appointed head gardener to the Duke of Bedford, Woburn Abbey.

* * The Yearly Subscription to THE GARDEN is: *Index*, 15s.; *Foreign*, 17s. 6d.

THE GARDEN

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[NOVEMBER 21, 1903.]

THE GARDENER'S CALLING.

A PROPOSED SOCIETY FOR GARDENERS.

WE have received the following letter, which has suggested the remarks we make upon the gardener's calling:—

"There seems a desire amongst gardeners—and of head gardeners chiefly—for greater unity of aim and purpose than now exists. To voice that desire has always been a matter of difficulty, because gardeners are much isolated from each other, and, whilst fully desirous of closer association, this is only possible under very adverse conditions. So far as it is possible to gather from the views of those who desire to see a National Association of Gardeners, there is in those aspirations nothing antagonistic to a gardener's welfare or to those whom he may serve. The object sought for is simply unity and improvement. To some extent there is a desire to improve the social as well as the professional status of the gardener. Too largely he is still regarded as a sort of domestic servant on an equality with the ordinary domestic, yet intellectually he is far beyond any of this class, and has responsibilities and cares that greatly exceed those which fall to the lot of other domestic helps. The average gardener is anxious to see his juniors, those who are to be the seniors of the future, coming into the profession more fully equipped with practical knowledge, that the status of the profession may be raised, thus securing for it from all quarters higher respect than it at present enjoys. The suggestion of a gardeners' society is naturally connected with the recent gardeners' dinner, a gathering that brought so many good gardeners together from all parts of the kingdom, and so naturally led to a desire for more frequent meetings. Amongst those present was Mr. W. H. Divers, the esteemed gardener at Belvoir Castle. That energetic gardener, after returning home and having time to think the matter over, sat down and addressed to the dinner committee through me a letter, in which he advised that that committee should not disband, but should take the needful preliminary steps to organise a National Gardeners' Association.

"The committee agreed to that suggestion, falling in with it readily, and have arranged to meet again on December 15 next for the purpose of determining what shall be done. I have in the meantime invited Mr. Divers to put any proposals he may desire the committee to consider into form, and I may, I am sure, venture to invite other gardeners who are interested in the proposal to send me brief practical suggestions. I am quite certain that should any gardeners be specially desirous of attending this meeting on December 15 my committee would cordially welcome them. Assuming that a real determination be arrived

at to form such a society as is mentioned, the best course to take would be to utilise the ensuing winter by a provisional committee for the purpose of preparing a scheme which, well thought out and practical, should be such as would be likely to secure hearty acceptance at a big gardeners' meeting held somewhere in London on the first day of the Temple show of the Royal Horticultural Society in May next. That show invariably brings together a big body of gardeners, and I am not sure whether their time after they have seen the show may not be better utilised at such a meeting as is referred to rather than in wandering about the tents on the ground. The subject is well worth discussion, both privately and in the horticultural Press.—A. DEAN."

We take it that there is a wide distinction between a calling in life and a vocation thereto, yet the words are so nearly identical that they may very often be interchanged. Link them together in a man's life, no matter what his profession may be, and the letters will naturally form themselves into—Success. The vocation in which we are mainly interested is that of gardening, and we may be excused if we say frankly that we look upon it as a high calling, and worthy of lofty aims, inasmuch as it ministers essentially, in one way or another, to the best welfare of human kind. Of late years a vast stimulus has been given to garden work in all its manifold aspects, and there never was a time when its influence in all good ways was more widely felt. It is natural that new aspirations should be awakened amongst a large and increasingly intelligent body of men who have accepted the calling as their life's work.

The post of a head gardener is one of more or less trust and responsibility. His training must necessarily have absorbed many of the best years of his youth and strength. During those years his experience has been gained through days of toil and evenings devoted to no less arduous study. His appointment to an important position often involves the management and oversight of a considerable number of men, and sometimes even, in part, of the estate. A capable man who fulfils these onerous duties with credit to his employer and himself is never left without his well-earned meed of honoured appreciation and adequate recompense, and he is surely worthy of both. Such an one has found his true vocation in both senses of the word, and there is then, perhaps, no lot in life more pleasant. There are certainly few in which the relations between employer and employed may become more intimate and friendly, and which present more

frequent opportunities of passing intercourse with notable persons of all ranks. Opportunities, besides, occur—always welcome to kindly spirits—of lending a helping hand to others who have but just set their foot upon the lower steps of the ladder. Above all, there is that close communion with Nature in some of her most marvellous workings which can scarcely fail to uplift and ennoble the man who possesses a seeing eye and a hearing ear, while the anodyne of continual fresh air in beautiful surroundings, and a healthful occupation ensured as far as may be a fair share of bodily vigour. We repeat it that there are few lots in life which offer advantages so agreeable. But those who attain to this honourable position are picked men—men of grit—who have won their place and not dropped into it.

A few words both of warning and encouragement to such as are at the outset of their career may not be in vain. In former times a man's handicraft held for him, in much greater degree than now, the lodestone of a genuine vocation. Alas! the average worker no longer looks upon his profession or trade as an art to be delighted in for its own sake, and in which he takes absorbing interest and self-respecting pride. It has come to be, in most cases, merely a means of getting on in the world—a motive right enough as far as it goes, but by no means an uplifting ideal. Within living memory a strange upheaval in such matters has taken place, and we look around us in some dismay as the truth breaks upon the perplexed mind that the cause of the overthrow may be sought for in education. Now education of the right kind, the proper training and preparation of mind and body for the fulfilment of the various duties of life, must, in its essence, be an unmixed good. There is, however, a thin veneer of skin-deep knowledge, too often misnamed education, which works untold mischief by helping to set up false standards instead of true and noble principles of life. In most callings there must be practice as well as theory, and drudgery before attainment. Unhappily the immediate effect of the book learning which is now more or less within reach of all has been that manual labour has gone out of fashion. A conviction, not openly expressed perhaps, but nevertheless deep-seated, has taken possession of young minds that handwork is not only hard work but contemptible withal, and the less to be done of it the better. Thoughtful and far-seeing men and women at the higher end of the social scale are doing what they can to combat

this false doctrine, and to prove by their own lives the happiness and dignity of labour.

Therefore we would urge upon the young gardener to let his first and firm resolve be to begin at the beginning, and to be thorough in all his work, neglecting no detail and shirking no difficulty. He need never fear that humble duties well done will be a stone about his neck to drag him under—very much the reverse—his good right hand is all the while carving out his fortune. Only his brains must keep pace with his hands, for it comes to this, that neither hands nor head can do without the help of the other.

There are many local gardener's societies for mutual improvement throughout the country which a young man may profitably join, for they give opportunities in their several districts for attending periodical lectures with practical discussions, as well as occasions for friendly intercourse. But there is this larger and broader scheme on foot for a National Gardeners' Guild or Association which we sincerely hope may be carried out in the near future. All crafts and callings have their own difficulties and disabilities, into which outsiders are not competent to enter. An authoritative organisation, if such could be formed, having for its officers the most influential heads of the profession, and offering membership, with certain privileges, to gardeners of every rank, would be of incalculable service in many ways. Not least, perhaps, in creating and fostering that *esprit de corps* which has been the lever in many a successful movement, for "Union is Strength."

HEAVY RAINS & HARDY PLANTS.

A FEW WORDS IN SEASON.

THE heavy and persistent rainfall of the past few months has upset gardening arrangements generally. With regard to hardy plants it has thrown their growing seasons quite out of order, and, judging from a casual review of these plants at the present season, it appears likely that many will require more than ordinary care to carry them unharmed through the coming winter, the danger being liability to decay, owing to the unripe and sappy state of their growths.

Many that should have slept quietly under the restful influence of the autumnal sunshine, and quietly awaited the winter in a dormant state, are vigorously pushing new growths. Others, finding the sodden state of the ground too much for their constitution, are losing their roots and root-stocks, and unless carefully attended to total loss of the plants appears inevitable.

Irises of the rhizomatous group—even the hardy German (so-called) Irises—have "gone measy," and quite a number of the rarer dwarf Irises have soft diseased patches on the rhizomes and myriads of scars on the few remaining leafy growths, showing that slugs have been busy.

Grassy Irises, too, are growing much too fast for their well-being. The gradual and thorough ripening they require is altogether wanting, and a set of small incipient growths are pushing, which can only perish, and much loss of time in building up strong flowering leads is all too apparent. Kniphofias, which of all hardy plants require the most thorough ripening, are growing vigorously; nothing but a sharp frost can check them now and then. A mass of fetid garbage will remain, amid which a few of the stronger leads near the outside of each clump may survive. Liatris also are growing fast; the thickened knob-like root-stocks are generally resting quietly now, but many leads are pushing fast. These require to be lifted and stored in a cold frame. Montbretias, particularly the newer and more tender kinds, appear to need lifting; their growth is much too forward, and

the young leads are too sappy and sodden to be safe in the open, save on sharp slopes; in fact, many of the South African plants generally grown in the open would be safer in boxes and placed in cold frames for a time. Delphiniums of the cardinalis, sulphureum, and grandiflorum types also look unhappy. Their best place now is in a cold frame. Many of the roots of *D. sulphureum* are rent from top to bottom as a result of too much wet. Ostrowskys will require careful watching; a few weaklings are pushing growths already, but the majority are still below ground, if growing.

Of alpine, the Soldanelles, the Asters, and small Crucifers, Campanulas, and other plants with leaves in the form of rosettes, or those hairy and generally liable to damp off, should be protected with a sheet of glass tilted over them, allowing plenty of air to circulate beneath. Leaves of trees that may have collected around the alpine should be removed, admitting as much air to the crowns of the plants as is possible, to ensure as much ripening as the season will allow. Many of these alpine do not look so happy as usual at this season, and, where possible, a few turves of each lifted and put in pans for cold frame storage will probably save much disappointment later. Plants from drier regions than our own—hardy, maybe, in a normal season—should be examined now, and those that appear unduly sappy, or show a tendency to decay, or are otherwise unlikely to withstand a sharp and prolonged spell of frosts with the ground in its present sodden state, should be lifted and placed under a light to dry somewhat, or protected from further rainfall. A mulch would prove harmful now; the plants appear to need most the fullest exposure possible to all the influences that tend to ripening, and the removal of all their decaying leafage and old flower-stems will be of the greatest assistance. The stronger border plants that would not be harmed by removal now, such as Irises and any other plants having thickened rhizomes or root-stocks, may, if they show signs of decay, be lifted and exposed beneath the shelter of a wall until thoroughly dried and the diseased portions are sufficiently healed.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London.

FLOWERS FROM THE OPEN GARDEN.

I enclose specimens of flowers which I gathered to-day (November 15) in my garden, which is in an exposed position. The *Solanum jasminoides* faces south, and has been in bloom since August. It is strange to see Larkspur in bloom in November, along with *Polyanthus*, *Anemones*, and several *Roses*. The old Bay tree is now beginning to bloom.—(Miss) R. LYELL, *Ruckmans, Oakwood Hill, Dorking.*

A welcome basket of flowers in November.

PEAR TREE FLOWERS IN NOVEMBER.

Mr. Whittaker, The Gardens, Manor House, Stockland, Bridgwater, writes: "I am sending you a few clusters of Pear blossom, variety *Duchesse d'Angoulême*, cut from a tree now in full bloom in the gardens of the Rev. H. A. Daniel, Manor House, thinking that your readers may perhaps be interested in the vagaries of the season. The tree, a standard, between 30 feet and 40 feet high, has borne a few dozen fruits this year, most of which were blown down by the gale of September 10, which also stripped the tree of its leaves. It now

presents the unusual appearance of spring-time in autumn, being simply covered with bloom."

PURPLE CLOVE CARNATION.

Mr. C. S. Aylward writes: "I have had enquiries insufficiently addressed in reference to my purple Clove Carnation mentioned in THE GARDEN of September 12. I should be obliged if you would be good enough to mention my fall address in your journal." It is as follows: 4, Hardwicke Villas, Bounds Green Road, New Southgate, N.

HAKKA SUAVEOLENS FROM THE OPEN.

Flowers of this uncommon plant come from Mr. S. W. Fitzherbert, Kingswear, South Devon. The creamy colour is very pretty and the fragrance quite pleasant, a spicy and herb-like scent.

ST. BRIGID ANEMONES.

I send you a small box of our St. Brigid Anemones which we have out to-day (November 16) from the open, a bed of seedlings; the seed was sown last March and the first blooms were cut in August. Plenty of buds are to be seen amongst the foliage, which is 6 inches high. This Anemone is very robust and quite hardy.—GILBERT AND SOX, *Anemone Nurseries, Dyke, Bourne.*

A very pleasant contribution to our table. The flowers were fresh and bright in colour.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 24.—Royal Horticultural Society's Committee Meetings at 12 noon; Lecture at 3 p.m., "Pomology as a Study," by Mr. Lewis Castle.

November 25.—National Chrysanthemum Society's Dinner, Holborn Restaurant, 6.15 p.m.

December 1.—National Chrysanthemum Society's Exhibition, Crystal Palace (three days).

December 8.—Leeds Chrysanthemum Show (three days).

December 10.—National Rose Society's Annual Meeting at 3 p.m. and Dinner at 6 p.m., Hotel Windsor.

December 15.—Royal Horticultural Society's Meeting, Drill Hall, Westminster; Horticultural Club usual Monthly Dinner; Discussion opened by Mr. George Bunyard.

Royal Horticultural Society.—The next fruit and flower show of this society will be held on Tuesday next in the Drill Hall, Buckingham Gate, Westminster, 1-4 p.m. A lecture on "Pomology as a Study" will be given by Mr. Lewis Castle, F.R.H.S., at three o'clock. At a general meeting held on Tuesday, the 10th inst., forty-five new Fellows were elected, making a total of 1,281 elected since the beginning of the present year.

Rubus rossifolius fruiting.—On page 332 of your last issue I notice that Mr. Wolley Dod questions this *Rubus* having fruited in England in the open air. I may say that I saw the fruits exhibited at the Shrewsbury show mentioned, and that I gave the exhibitor, Mr. J. H. White of Worcester, an order for six plants. These duly arrived in the autumn, and were planted in an open space in my orchard, in a small circular bed cut out of the turf. The group has now attained a diameter of about 2 feet, and during the summer and autumn of this year I have had a succession of flowers and fruit. The flowers are very pretty, fragrant, of a snowy white, and look very effective against the finely-cut foliage. The plant was still flowering until a fortnight ago, when it was checked by our first severe frost. The fruits ripened fairly plentifully in spite of the sunless summer. They are very pretty to look at, and well worth growing from a decorative point of view, but they are greatly wanting in distinctive flavour. The birds, however, are very fond of them, and have to be netted off if the fruit is desired. I may add that our soil, which seems to suit this *Rubus* well, is a light sandy loam.—M. ALDERSON, *Worksop.*

Angelonia grandiflora alba.—A note on this plant appeared in THE GARDEN of the 11st ult. over the initials "R. D." I may say we are growing between three and four dozen of it here this year. It is pretty both in flower and foliage, and useful for decorative work; but I cannot call it a graceful plant as "R. D." does. Its cultivation seems to be of the simplest; seed is sown early in the spring, the seedlings pricked off when ready and potted on as needed, finally into 5-inch pots. They are given a warm, moist position near the glass, and by late autumn and early winter useful decorative plants will have developed.—J. EASTER, *The Gardens, Nostell Priory.*

Double White Meadow Saffron.—The various members of the genus *Colchicum* are undoubtedly among the most beautiful of autumn-flowering plants. One of the most popular and most frequently met with is the Common Meadow Saffron (*C. autumnale*), a native of this country, in some parts of which it is abundant, growing in moist meadows and pastures. They are more suitable for growing in grass than in the border, where the heavy autumnal rains splash and break down the flowers. The choicer varieties, one of which is here illustrated, may be admitted into parts of the rock garden, where they should be planted among loose-growing carpeting plants, such as *Sedums*, &c. Preferring a moist sandy loam, the corms increase rapidly, forming bunches from which the flowers are produced in succession in great profusion. Few things are more effective than a mass of these flowers in a turf in close proximity to water. When necessary for the purpose of increasing the corms may be lifted after the leaves have died down, which generally takes place in June or July, and divided, planting again before August. There are several forms of *C. autumnale*, the type being bright purple in colour. Others are *C. a. album*, pure white; *C. a. pallidum*, pale rose; *C. a. atropurpureum*, deep purple; double white and double purple. Closely allied and equally effective is the bearded Meadow Saffron (*C. tripartitum*), the largest flowered of all being the Caucasian species (*C. speciosum*). The flowers of the last are rich rose-purple, and often 1 foot high.—W. IRVING, *Kew.*

Banksia suaveolens.—A few months ago I was presented with a little shrub between 4 feet and 5 feet in height under the above name, the specific title of which I have been unable to find either in Nicholson's or Johnson's dictionaries of ardening. It was at once planted out in a airy sheltered spot, where it soon began to make growth, and is now in flower. The fully-developed leaves are 4 inches in length, abruptly pinnate, with seven pinnae on each side, 1½ inches in length and one-sixteenth of an inch in breadth, stiff and wiry, and terminated with a spine, the pinnae reaching down to the mid-rib. The foliage gives the plant a graceful feathery appearance. Twenty of the shoots are now bearing flower. The bloom-lusters are three-quarters of an inch in length and the same in breadth, and are composed of numbers of four-petalled flowers a quarter of an inch across, the petals being very narrow and ivory white, tipped with faint pink. The blossoms have a pleasant honey-like fragrance. I think it extremely probable that this native of Australia will survive a winter in the open on the mainland, though it doubtless would do so in the Isles of Heilly, where some of the genus are doing well.—J. W. FITZHERBERT, *South Devon.*

Salvia rutillans.—A large plant of the Pine-apple Salvia, as this species is often called on account of the strong Pine-apple scent given off by its bruised leaves, the fragrance being emitted even if the foliage is only casually brushed by the hand, is now in flower with me in the open. It is about 6 feet in diameter and 4 feet 6 inches in

height. Owing to the unfavourable season I was quite prepared for its failing to flower this year, so was the more gratified to find, about the end of October, that its shoots were terminated by budding racemes. The spell of dry sunny weather that, wonderful to relate, we have now enjoyed for a fortnight, has brought the plant into full bloom, and the couple of hundred or so carmine flower-racemes make it a pretty sight. *S. azurea grandiflora*, better known as *S. Pitcheri*, is bearing its deep blue flowers, as is *S. splendens grandiflora*; but the latter is in an exposed position, and its brilliant scarlet blossoms have been much damaged by the weather. *S. coccinea* grows to a large shrub here, many feet in height, but is not so ornamental as the species already named. *S. patens* has been fine through the summer, but its blossoming period is now past. All these species are unprotected in the winter. I have lately received *Salvia dichroa*, but it has not flowered with me as yet.—S. W. FITZHERBERT, *South Devon.*

Great International Horticultural Exhibition at Edinburgh.—The Royal Caledonian Horticultural Society, having very largely increased its membership during the past few years, desires to make a strenuous effort to further advance horticultural interests in this country, and in consequence of the



A COLONY OF THE DOUBLE WHITE MEADOW SAFFRON.

success of the international fruit and flower shows promoted by the society in Edinburgh in September, 1865, 1869, 1875, 1882, and 1891, the council propose to hold another great international exhibition in September, 1905, the exact dates to be afterwards determined. After a lapse of fourteen years since the last international, the council feel that the time has now arrived when another should be held to show the marked advancement in horticulture which has been made during that period. The council are anxious that this international should excel its predecessors, and, that it may do so, it is necessary that they should be in a position to offer such prizes as will secure the best productions of the United Kingdom and abroad. His Majesty the King has graciously accorded his patronage to this exhibition, and has given a valuable silver cup for competition. The council appeal to all those interested in horticulture for their cordial and liberal support, and early intimation of their subscriptions will greatly assist the council in carrying through the necessary arrangements. Intimation of subscriptions will be received by P. Murray Thomson, S.S.C., 5, York Place, secretary and treasurer of the society; or by the Union Bank of Scotland, and acknowledgment will be made by the treasurer.—BALFOUR OF BURLEIGH (President), P. MURRAY THOMSON (Secretary and Treasurer).

Phalaenopsis.—This is without doubt one of the finest Orchids yet introduced, and no collection, however small, should be without a few of these plants. They produce thick fleshy leaves, from the axils of which the spikes appear. They are very free flowering, and the flowers last for a long time, usually for a period from four to six months. The growing season is from March to October, during which time the temperature should be from 65° to 70°, allowing it to rise to 80° by sun-heat, provided the house is shaded, for the sun is very apt to scorch the thick fleshy leaves. From the beginning of November until March a temperature varying from 58° to 62° is sufficient. During the growing season they require plenty of water; in fact, they should never be allowed to become dry, as they are apt to shrivel and lose the bottom leaves. *Phalaenopsis* are grown in different ways, but I have seen them succeed well under the following two modes of treatment: For pot culture fill the pot to within 2 inches of the top with potsherds. Sphagnum, with a few potsherds mixed with it, should then be placed upon the drainage, and the plant elevated 3 inches above the rim. If grown on blocks they should be placed on a good sized one, so that there is plenty of room for the roots to cling to. First place a little sphagnum on the block, then fix the plant on with copper wire, and afterwards hang it up near the roof. Great

care should be taken not to place them too near the glass or the plants may get injured by cold during the winter season. *Phalaenopsis* are rather difficult to propagate, sometimes they will produce young plants from the old flower-stems. These should be left until well rooted and then placed on small blocks.—JOHN R. MORGAN, *Waddesdon.*

Forced Pinks.—By making the Carnation largely a greenhouse plant bloom can be had under glass at periods of the year when flowers are very scarce in the open. The Pink is admirably adapted for forcing into bloom under glass some time before it can expand its blossoms in the open, and there is ample material for the purpose—Pinks of dwarf, compact growth, with stiff stems, the blooms standing erect, and when expanded making a fine head of flower, such as Mrs. Darke, Modesty, John Ball, and others of the laced section; and of the ordinary bedding varieties, Samuel Barlow, Mrs. Lakin, Anne Boleyn, Lord Lyon, Derby Day, Lizzie Duval, and others. As far as possible varieties should be selected which do not split their calyces. This is a defect in the Pink when grown in the open ground; it is a still greater defect when grown in pots. But to have good plants for forcing purposes the pipings should be placed in pots in early summer, using 4-inch pots filled with soil nearly to the top, and on this should be placed a layer of silver sand, filling the pot with pipings. Then give them a free sprinkling overhead, placing them in a frame on a gentle bottom-heat, keeping them moderately moist and shaded from the sun, however, giving the pipings some air by day. Then, when rooted, they should be potted off singly into small pots, and when established planting them out of doors until October, when they should be lifted, potted into good compost, wintered in protected and cold frames, taken under glass early in March, and gradually brought on with as little forcing as possible. The main thing is to have the plants as well rooted as possible at the time of the autumn planting, care being also taken not to over-pot them, watering with care, and giving the plants due attention. The lacing of the fine-laced varieties cannot be expected to be as perfect as on flowers subjected to high cultivation in the open, but they will be delightful, and, not being exposed to the weather of our uncertain springs, they will be clean, bright, and fair to look upon. There is really great enjoyment in growing Pinks in pots,

which anyone can find out for themselves if they will make an attempt to grow them well.—R. DEAN.

How Orchids are fertilised.—Writing on Orchids in *Knowledge* for November, Mr. R. Lloyd Praeger remarks that the remarkable flower-structure of these plants "is especially adapted for cross-pollination by insects, self-pollination being practically impossible; and, furthermore, only a very few chosen insects can reach the honey or fertilise the plant. We can imitate the visit of a bee, which is one of the favoured agents, by gently inserting into a newly-opened Orchid flower a sharpened lead pencil, and we will understand how this complicated mechanism works. The hypothetical bee's head, pushed into the entrance of the flower (as the insect hangs on the convenient landing-stage formed by the labellum), in order that its proboscis may reach the honey stored at the end of the long spur, comes in contact with the sticky knobs which terminate the pollen-masses. One or both attaches itself to our pencil, which draws it out of its sheath as we withdraw it. And now rapid and remarkable changes occur. In about half a minute the attaching cement sets hard and firmly fastens the mass to its newly-found support. At the same time, owing to the unequal contraction of the stem of the pollen mass, caused by drying, its axis becomes bent, and it rapidly bends through a right angle, so that the bundle of pollen no longer stands upright on the pencil, but points forward. What will happen when our hypothetical bee visits another flower we can see. When the bee's head is inserted into the second flower the pollen which it carries will, owing to the deflection of its stalk, come in contact, not with the corresponding anther, but with the sticky stigmatic surface which lies immediately below: and thus cross-fertilisation is effected. Furthermore, only a little of the pollen will adhere to this stigma, and as the bee visits further flowers, the pollen will be widely spread among the various blossoms, the bundle attached to the bee's head becoming smaller and smaller till at length only the flexible stalk remains. The above description will apply to most of our commoner Orchids, though even among the British species a considerable range of form is found."

Young Carrots in autumn and winter.—In most gardens there is a demand for young Carrots as long as they are available, and in light or well-drained soils there is no difficulty in having them from November until April. For this supply sowings made in July and August will provide sweet, tender roots, and they winter well, the chief difficulty being wireworm or grub; it is necessary to well prepare the soil previous to sowing. The Carrot is much hardier than is supposed. Of course, the large roots sown early in the year crack badly if left in their growing quarters, and I am not sure if such Carrots are worth storing. They do not compare in quality with the smaller roots obtained from the soil as required for use. Huge Carrots with a large core are more indigestible and flavourless. The Short-horn section and Early Nantes, or the smaller varieties of the Intermediate type such as Gem or Model are splendid for autumn supplies. There is a gain by growing Carrots that can be used from the soil, as they can be sown when spring crops are cleared, and there is less trouble in storing and less decay. In severe weather it is difficult to get at the roots, but this can be met by covering over a row or two with litter or by drawing a few of the largest and placing them under cover.—S. H. M.

Cypella Herberti.—This charming little Brazilian bulb has been flowering with me in the open for some weeks, and there still remain one or two more buds to expand. It is in a narrow, well-backed border, barely more than 1 foot in width, where Nerine Fothergilli major flowers well. The Tigridia-like apricot-yellow flowers with black pencilling down the middle of the three petals are delicately beautiful, and are borne on stems 18 inches or so in height, each stem bearing three or more blossoms. *C. plumbea*, which I believe is also known under the name of *Pohlia platensis*, a native of Mexico, is of far stronger growth, averaging a height of between 2 feet and

3 feet. Its flowers are larger than are those of *C. Herberti*, but their colour is poor, being a dull, leaden blue, with a yellow stripe down the petals. It has been in bloom with me since the end of September, and there are still more flowers to open; but, from a decorative point of view, it is scarcely worth ground room.—S. W. FITZHERBERT, *South Devon*.

Chrysanthemums at Arundel House, Dumfries.—Among the places in the neighbourhood of Dumfries where large-flowered Chrysanthemums are always well grown is Arundel House, Maxwelltown, the residence of Mr. John Primrose. The number of plants is small, about 160, but they are remarkably uniform in quality, and the magnificent foliage and finely coloured flowers show that they are admirably cultivated by Mr. J. Allan, the head gardener. Although the season has been a bad one, there is no falling off in the size or quality of the blooms from last year, and flowers of the highest exhibition character could be cut in considerable numbers were they desired for shows, which they are not. There are about ninety varieties in all, and among the best one noted were the following: T. W. Pockett, very fine; Nellie Pockett, Guy Hamilton, a good white; Bessie Godfrey, extra fine; some magnificent blooms of W. R. Church, Mrs. White Popham, Lady Byron, very good; Scottish Chief, Australia, Godfrey's King and Godfrey's Masterpiece, both very fine; Charles McInroy, Miss Elsie Fulton, George Lawrence, rather tall, but very fine; Violet, Lady Beaumont, which Mr. Allan prefers to Lord Alverstone; Rev. W. Wilks, better here than Australia, Lady Crawshaw, and Mutual Friend. There are few failures. Colonel J. B. Appleton has not done well, and Mme. Paolo Radaelli has not been a success, though the foliage is all that can be desired. Mr. Allan feeds largely with cow manure water and Canary Guano, alternated with soot water, and it is evident that his treatment is very successful.—S. A.

Instruction for young gardeners. It has been suggested on several occasions in THE GARDEN that head gardeners might do a great deal towards improving the knowledge, both theoretical and practical, of the young men in their gardens, and this was brought forcibly to my mind when recently spending a few days with a head gardener friend. In his own house he holds a class for the young men in the bothy once or twice a week, and teaches them the rudiments of botany and the theory and practice of horticulture. The matter originated by one of the young men asking the chief if he would give him a little help, as he thought of entering for the Royal Horticultural Society's examination, which is held every spring. Others in the bothy followed this good example, and the result now is that some four or five young gardeners are using the long winter evenings to the very best advantage, for they are gaining what many young gardeners lack, an elementary knowledge of the classification and anatomy of plants and flowers, and of the principles which underlie the practice of horticulture. Such an example is worthy of emulation by other head gardeners in country districts where the young men are miles away from a town where evening classes are held. The head gardener in question has the advantage of having passed through Kew, and therefore probably has a better knowledge of botany and horticultural theory than many. All, however, know more than the young men under them, or at any rate they ought to, and by inaugurating such a class as I have mentioned might do much good to their men, and doubtless would also be doing something towards raising the standard of gardeners and gardening in this country.—A. P. H.

Mr. E. H. Wilson.—The following note about Mr. E. H. Wilson occurs in the introduction to Mr. James H. Veitch's paper on "Recently Introduced Trees, &c., from Central China," in the *Journal of the Royal Horticultural Society*: "In the spring of 1899, Sir William Thiselton-Dyer of Kew was kind enough to select a young man from the staff of the Royal Gardens, who possessed, as far as could be judged, the necessary qualifications for undertaking a prolonged journey in certain districts of China. The selection has proved a

happy one, and the success of the venture so much beyond expectation that I have felt justified in despatching the young man in question (Mr. E. H. Wilson) on another trip to the Chinese-Tibetan frontier, some thousand miles further inland than he has been before. In order that Wilson might be fully equipped for obtaining the best results from the neighbourhood he first visited—Ichang in the Yangtze Valley and Western Hupeh generally—and be conversant with the most striking of the trees and shrubs known to be in that district, some months were devoted to his visiting Professor Sargent in Boston and to finding Dr. Henry, at that time in the Chinese Customs service, and stationed at Szemao in Yunnan, on the border of Tonkin. The necessity of consulting Dr. Henry and benefiting by his unrivalled knowledge of Chinese trees and shrubs—a knowledge freely imparted to Wilson—was so obvious that a year was devoted to this alone. The journey to Szemao *via* Tonkin proved arduous, and at one time the chance of reaching Dr. Henry by this route seemed hopeless; but the steadfast purpose of the young Kew student, of which on this and on other occasions he gave ample proof, enabled him to reach his destination. After spending some weeks with Dr. Henry, who taught him much, Wilson left for Ichang *via* Hong Kong and Shanghai, and during the two succeeding years—1900 and 1901—sent home great quantities of seed, carefully prepared that it practically all germinated. During the three years that Wilson was absent he carried out his written instructions faithfully, and proved himself possessed of rare energy and an enviable capacity for solid work. His herbarium numbering some 15,000 specimens, is most valuable and now lies in the leading botanic centres of Europe and America."

Lecture on the Glasgow parks.—On the evening of the 13th inst. a very interesting lecture on "The Public Parks of Glasgow" was given in one of the St. Andrew's Halls of the city by Mr. James Whitton, the superintendent of the city parks. It was the first of a series of lectures for this season, arranged by a special committee of the Corporation to bring before the citizens the work of the various departments under the management of the municipality. Mr. Whitton gave an admirable account of the origin, history, and development of the parks, the first of which was the celebrated Glasgow Green, so familiar to all Glaswegians, but which has within recent years been so much improved as to be unrecognisable to those absent from the city for a lengthened period. Details were also given of the extent of the parks and of the staff employed, and the lecture was made more interesting and valuable by a number of limelight views. Mr. Whitton was warmly thanked for his lecture at its conclusion. It will be repeated in other parts of the city on the 20th and 27th inst. and January 15.—S.

Raspberry Belle de Fontenay in November.—There has been such a scarcity of fruits this season that any varieties which give a supply even as late as this are valued. The above Raspberry is well known, though not extensively grown, but for private gardens or home supplies it is one of the best autumn varieties if given good soil, ample room, and the growths kept well thinned. If allowed to become at all crowded the plant is not reliable; it is a gross grower, and must be kept well thinned out at the base. The fruits are large, round, bright red in colour, very juicy, and for an autumn fruit the flavour is excellent. This Raspberry, though a free grower, is not tall but robust, having large leaves, which are quite silvery on the under surface. It is also known under the name of *Perpetual de Billard*, and in my opinion is the best red in its season. It bears two crops a year, as the largest shoots fruit late in July and the newer wood in October, and in mild seasons well into November. An open position is required, and the plants should be grown thinly, so that the fruits are freely exposed when ripening. They may be used in a variety of ways, and are excellent when mixed with Apples. At this season, however, they do not keep long, so that they are best used as soon as gathered.—S. M. H.

Dichorisandra thyrsiflora.—Nearly all the *Dichorisandras* are grown for their foliage, in this species the leaves, though pretty, are so attractive as the flowers, for at this season they form a bright feature in the stove, and that, too, at a time when there is little else in bloom in the structure. It is a stout-growing plant, the stems being thick and fleshy, forming usually a dense mass. From the centre of this are pushed up numerous stout shoots of a partially succulent character, reaching a height of 3 feet or so. The leaves are of a uniform deep green tint and broadly ovate in shape. The flowers, which are in large terminal thyrses, are small, but conspicuous by reason of their numbers and their beautiful rich indigo blue colour, against the groundwork of which the bright yellow anthers are very conspicuous. It is a plant of easy propagation and culture, for it can be readily increased by division in the spring, and the plants grow well in a mixture of loam, leaf-mould, well-decayed manure, and sand. Plenty of water during the growing season is essential, and as the pots get full of roots a little liquid manure occasionally will be beneficial. This *Dichorisandra*, which was introduced in 1822, is a native of Brazil. Some members of the genus with prettily marked leaves which were introduced about the end of the sixties, when foliage plants were in the height of their popularity, realised a very high price for a time.—H. P.

Bougainvillea glabra.—Some idea of the vigorous growth and floriferousness of *Bougainvillea* when growing out of doors in a climate suited to its culture may be had from the accompanying illustration, which was made from a photograph taken in Mr. H. M. Arderne's famous garden at Cape Town. It has formed a huge bush, and is covered with flowers. But the *Bougainvillea* thrives splendidly out of doors much nearer home, it covers many of the villas which are dotted about upon the hillsides round the chief towns of the Riviera, as Cannes, Nice, Mentone, &c. There no climber makes a more brilliant display or a more pleasing covering for a house than some of the *Bougainvilleas*, providing the villa itself is not painted some colour with which the flowers of the *Bougainvillea* cannot harmonise. The taste for highly coloured villas which prevails more or less in the Riviera often leads to incongruous colour displays when the house is covered with a flowering creeper. *Bougainvillea spectabilis* and *B. glabra* are those mostly planted in the south of France.

The New Horticultural Hall and Garden.—In the volume of the Journal of the Royal Horticultural Society just published the secretary makes a strong appeal for funds for the new Hall now in course of erection, and to equip the new garden. We have referred to the importance of assisting the council in every possible way on page 358. Fifteen thousand pounds are needed still for the new Hall, and £5,000 for the garden, and it would be indeed a red-letter day in the history of this great society if next year, when the centenary is celebrated, the Hall and garden may be opened without a debt. We hope those who desired the garden will now supplement the gift of Sir Thomas Hanbury, K.C.V.O., and not allow the practical work of the society to starve.

Storms and old trees.—The great storms of 1903, says *Country Life*, will long be remembered, if only for the irreparable damage they have done to so many of our fine old trees. Among others, two of great interest, especially for naturalists, were practically destroyed during the great gale of September 10, namely, the Oak and Ash planted by Gilbert White in 1731, in his orchard at the Wakes, Selborne. A correspondent in *Nature Notes* writes: "The Ash is irretrievably destroyed, and will have to be removed, but the Oak, by topping, may be preserved. Several other trees are injured, but the beautiful Wych Elm is not much hurt." Gilbert White was only eleven years of age when he planted these trees, and

writing in 1790 to Marsham, he said: "In a humble way I have been an early planter myself. The time of planting and growth of my trees are as follows: Oak in 1731, 4 feet 5 inches; Ash in 1731, 4 feet 6½ inches; Spruce Fir in 1751, 5 feet."

Magnolia Campbelli.—In the obituary notice appearing in your last issue of that good gardener and most estimable man, the late William Osborne (for so many years in charge of the fine arboretum and pinetum at Fota Island, Queens-town), it is stated by the writer that this splendid shrub bloomed for the first time in Europe under his care. I think this is a mistake, as, unless I am greatly mistaken, this honour belonged undoubtedly to my late friend W. H. Crawford of Lakelands, near Cork, who got one of the first plants of it imported into this country, and bloomed it several years before it flowered at Fota.—W. E. GUMBLETON.

A way of helping the new Hall fund.—In the Journal of the Royal Horticultural Society just published there is a note from Messrs. Protheroe and Morris, the well-known auctioneers, to the effect that an American well-

fruits are pretty for decoration when gathered with some of the foliage. It grows freely even in large towns, given a good northward. I saw it growing very freely in the North on some raised banks, and it was valued for its colour at this season as it fruited late, and the crop was not eaten by birds.—G. W. S.

Celeriac.—This vegetable is so rarely seen that when such good roots as those staged at a meeting of the Royal Horticultural Society on the 27th ult., and given a cultural commendation by the fruit and vegetable committee, are shown the fact is worth more than passing notice. The roots were staged by Mr. Chamberlain, gardener to S. Heilbut, Esq., Holyport, near Maidenhead. This root is much grown on the Continent for use at this season, and it answers a double purpose—the tops are used for seasoning, and the roots as a salad in much the same way as we use Beetroot. It is also a delicious vegetable when properly cooked and served whole with white sauce or melted butter. I am surprised that *Celeriac* has not found greater favour in this country either as a salad or as a vegetable, and especially so where



THE FAMOUS BOUGAINVILLEA GLABRA IN THE GARDEN OF MR. H. M. ARDERNE, CAPE TOWN.

wisher of the society, Mr. C. G. Roebbling, of Trenton, New Jersey, U.S.A., sent over a plant of *Zygopetalum roebblingianum* to be sold by Messrs. Protheroe and Morris, and the sum realised to be handed to the secretary of the Royal Horticultural Society for the new hall fund. A sum of 50 guineas resulted from the sale, and Messrs. Protheroe and Morris showed their sympathy with the work of the society by making no charges for the sale.

The Strawberry—Raspberry in autumn.—A poor fruit.—This is the common name in gardens of what is often thought to be a hybrid, but it is a species of *Rubus*. The fruits, however, are very poor, almost flavourless, and even when cooked are insipid. It may be asked why bring such a poor fruit into notice at this season, and I do so to prevent those who may be deceived by its name from planting it for use for dessert or cooking. There are others, such as the Loganberry and the Mahdi, worth good culture, but the above is only useful as a novelty or as a cover in out of the way places. The Strawberry-Raspberry forms a low bush, and in some soils it bears very freely. The

Celery is liked. Of late years this has been used more in a boiled state than formerly, and it is a most valuable vegetable, as many invalids who cannot digest ordinary green vegetables can eat it. Large quantities of *Celeriac* are grown and imported into this country, but the roots staged by Mr. Chamberlain showed that, given good culture, quite as good material can be grown at home and with less trouble than ordinary Celery providing the seed is sown sufficiently early to secure a full season's growth. I merely wish to point out in this note the value of *Celeriac* as a winter vegetable; it may be had in good condition for six months, viz., from October to March, if the roots are given cool storage when lifted at the approach of frost, though in well-drained soils I have wintered the roots in their growing quarters, and treated thus the flavour is better and the roots do not shrivel. Excellent varieties are grown abroad, but in this country only one or two are catalogued, and then under the name of Turnip-rooted Celery. The plants like a full supply of moisture when growing and not too clayey soil.—G. WYTHES.

Tillandsia Lindenii.—For some reason or other Bromeliaceous plants have never become so popular in this country as across the Channel, many objecting to them from their severe form. Granting all this, some of them are well worth growing as flowering plants, among them that at the head of this note, for not only are the flowers beautiful but they are borne during the late autumn and early winter. The plant itself forms a very symmetrical specimen, built up of narrowish dark green leaves, and reaching a height of 6 inches or thereabouts. From the centre of this the flower-stem is pushed up sufficiently high to well overtop the leaves. The upper part of the stem is flattened out to a width of 3 inches or 4 inches, caused by two oppositely arranged rows of large, closely-imbriated bracts, which are in the best examples of a rich pink colour, but in this respect individuals vary a good deal. The flowers themselves, which are pushed out from the axils of these bracts, are about an inch across and rich purple. Individually they do not last long, but a succession is kept up for some time, and the bracts retain their brightness long after the flowers have faded. This *Tillandsia* is a native of the Andes of Peru, and will succeed with the treatment given to the general run of cool stove or intermediate house plants. The best soil for it is fibrous peat, sphagnum moss, and silver sand, and the operation of potting should be carried out in early spring before growth recommences.—H. P.

THE LILIES.

(Continued from page 334.)

LILIUM BURBANKI (Hort.), Luther Burbank's hybrid Lily.—A showy hybrid of the pardalinum type, and a really good garden plant. Unfortunately, the plants were distributed before proper selection had been made, and there are three forms sufficiently distinct to warrant separation. *L. pardalinum*, Parryi, and *washingtonianum* are clearly traceable in one or other of them. In all the characters of pardalinum are dominant, and some of the hybrids show their hybrid origin in one or two obscure characters only. The only plant that appears distinctly midway between its parents is the pardalinum-Parryi hybrid, and this is the plant that the Royal Horticultural Society considers should be known as *L. Burbanki*. (See Journal of the Royal Horticultural Society, vol. xxvi., page clxxiii.) Bulbs 4 inches to 6 inches long, 1 inch to 2 inches wide, a scaly rhizome composed of blunt white scales, the roots proceeding from all surfaces of the root-stock. Stems 5 feet to 6 feet high, slender, hollow, green, sparsely rooting at their bases. Leaves scattered, occasionally whorled, widely lance-shaped, broadest near the tips. Flowers ten to thirty, borne on slender, sub-erect foot-stalks 6 inches to 12 inches long, in a loose spike or compressed umbel, often arranged in two tiers of six to ten each, with a few scattered above, 4 inches across the expanded reflexed petals, coloured deep yellow in the lower half, and spotted crimson. The reflexing portions of the petals are tipped crimson, the tubes are an inch across, slightly inflated at their bases, and contracted 1 inch to 1½ inches above the ovary. Very fragrant. A charming free-flowering Lily, distinct from pardalinum in its more slender habit, its free flowering character, its contracted tube, and its clear yellow colouring at the throat. The fragrance is that of Parryi. Common in cultivation; flowers in July.

CULTURE AND USES.—This Lily prefers a root run of peat or loam and leaf-soil. It cannot be grown well in the open plant border unless it is planted amongst tall-growing shrubs and herbs quite at the back in places considered good for *L. auratum*. It is peculiarly

susceptible to drought, as its roots run just beneath the surface, and in light dry soils it should be associated in peat-beds with *Ericas*, *Kalmias*, *Azaleas*, and so-called American plants, and even in such surroundings it will require frequent attention with regard to water during the summer months. It is not a marsh-loving plant; the bulbs decay wholesale in very wet places. It is just the plant to employ in brightening *Azalea* beds late in the summer. Its tall, slender stems and inflorescences appear at their best towering over dwarf shrubs. The best group we have seen in public gardens is that in front of the Palm house at Kew. The light peat there employed for American plants just suits *L. Burbanki*, and the bed whilst in flower is one of the best sights in those celebrated gardens. This plant is scarcely suitable for pot culture, as it is impatient of removal and the stems weaken under glass. September is the best month in which to start a colony, and the bulbs need not be buried more than 6 inches deep.

L. canadense (L.), the Canadian Bell-flowered Lily.—A dainty, nodding, bell-shaped species of slender outline from North-Eastern America, and an old-time inhabitant of our gardens. One of the first plants introduced from America to European gardens. It is very variable, ranging in colour from yellow to dark red, with but few intermediate colour forms. The yellow-flowered form is the more common, and this we accept and here describe as the type. Bulbs rounded, annual, with prolonged growing points, the new growths being thrust 3 inches to 4 inches distant by ivory-white stolons one-third of an inch thick, so that in the course of years a chain of old bulbs is formed with a new one at one extremity, the older bulbs sending out many smaller rhizomes from bulbils having origin in the fractured scales. Roots few, and produced from the base of the bulb only. Distinctly annual. Stems slender, hollow, 3 feet to 5 feet long, green, bearing very few roots at the base. Leaves numerous, in five to ten regular whorls of six to eight each, lance-shaped, slightly recurving or sub-erect. Flowers on nodding flower-stalks, pendulous, in lax umbels of four to six each, bell-shaped, reflexing but slightly. Petals lance shaped, all equal, coloured yellow, dotted ruddy chocolate in the tubular half, and the free tips are sometimes minutely dotted crimson on the inner surfaces. Scarcely at all fragrant. Very common in cultivation. Flowers in July.

Var. parviflorum.—See *L. parviflorum*.

Var. parvum.—See *L. parvum*.

Var. penduliflorum is a wide variation, coloured copper-red, with closely-reflexing flowers, as in *superbum*. Not common in cultivation.

Var. rubrum is coloured orange-red and dotted chocolate internally on an orange-yellow ground. Differs from the type in its slightly smaller flowers and colouring only. Common in cultivation.

CULTURE AND USES.—In this plant and its pretty varieties we have a type of Lily that could be successfully employed in association with water, in the bog garden, and in shady damp situations. The best place for its well-being and for the better display of its flowers would be the margins of a brook, lake, or pond, the plants raised considerably above the water level, in order that the root-tips alone can reach moisture. It prefers a root run of sandy peat, or, better still, good leaf-soil, and slight shade overhead is necessary in all stages of growth. It is quite unsuitable for pot culture, and it is hopeless to attempt its cultivation in

a dry wind-swept border; but it will thrive apace in places where *Cypripediums*, *Trilliums*, *Erythroniums* of the American group, and moisture-loving Ferns and Water Flags delight to grow. The bulbs should be but slightly buried; the roots, and bulbs, too, will descend if it appears necessary to do so. Stagnant moisture about the bulbs does great harm, but if there is plenty of moisture a foot below the bulbs their roots will soon find it. October is the best month to plant.

L. candidum (L.), the Bourbon or Madonna Lily.—A well-known flower in cottage gardens, where it seems to thrive wonderfully well, but where aggregated together by the hundred, and subjected to good cultivation, it often falls a victim to the devastating Lily disease (*Botrytis cinerea*). The plant is variable, and there are two garden forms of the type, the smaller and inferior form, which is evidently *var. peregrinum* (Linn.), and the broad-petalled typical British *candidum*, the latter a good disease resister and the better garden plant. Bulbs pyramidal in outline, with a flattened base, scales yellowish, very thick at the middle. Stems pale purple, black-purple below, 4 feet to 6 feet high. Leaves autumnal, narrow, oval, deep green, with very stout leaf-stalks developing a week or two later than those of *peregrinum*. Deep green, narrow lance-shaped, thickly disposed on the stem from base to summit, longest and broadest below. Flowers ten or more in a long spike, white, openly funnel-shaped, 4 inches to 6 inches across, the petals stout, showing the veins prominently, recurving at the tips, and often undulating, surfaces glistening. Flowers in June-July, common in cultivation.

Var. peregrinum (Linn.).—The straggling Madonna Lily, and inferior garden form. Bulbs whitish or pale yellow, cone-shaped, flattened at the base, often compound, three to six crowned, very prolific in offsets, rarely making such large single-crowned bulbs as the type. Scales thin, narrow, very numerous. Stems greenish above, purplish below, 4 feet to 6 feet high. Leaves lax, aggregated below, much scattered above, narrower, shorter, and more erect than the type. Flowers fifteen to twenty in a long spike, closely arranged, white, funnel-shaped, scarcely at all reflexing, the petals tips covered with down externally, substance very thin. Differs from the type in many minor characters, chief of which are its small, non-reflexing flowers of thin substance. Its liability to disease stamps it as a variety to avoid rather than to cultivate.

Var. flore-pleno (Hort.), syn. *spicatum*, *monstrosum*, &c., the monstrous Madonna Lily, is an abnormal form, the petals of which are in the form of white bracts clasping a long white spike. Quite an ugly malformation, and of no garden value.

Var. aureo marginatum differs only in its leaves being prettily margined pale yellow.

Var. variegatum has snowy white flowers and foliage variegated white, generally irregularly.

Var. striatum is a poor scantily-flowered form, whose petals are greyish white, variously and irregularly striped purple on the outer surface, and faintly tinted lilac internally. Its garden value is limited. Fasciated forms are numerous, and are generally a result of injury to the preceding year's flower-stems or to unduly rich cultivation.

CULTURE AND USES.—It ought to be quite unnecessary to describe the cultivation of *L. candidum*, for the cottager's garden Lily generally manages to take care of itself, though it often thrives grandly in a wayside garden, it may refuse to grow at all under

expert treatment. Instances occur yearly where thriving clumps, lifted and replanted, have gradually dwindled away. We are of opinion that situation and disregard of shelter from spring frosts have more to do with failure in growing the Madonna Lily than anything else. It is known to thrive in open sunny situations, but it prefers the friendly shelter of trees or tall-growing border plants, particularly when making stem growth, for injury from frosty winds at this stage is the forerunner of the dread disease. In all cases start the plantation with fresh bulbs, plump and unbruised, and acquire them under a guarantee that they are British grown, and the true, broad-petalled *L. candidum*. Our description of the bulbs, inadequate as it is, owing to the lack of striking characters in their build, will, it is hoped, help planters to determine the true plant; the other is very liable to disease, and it is sent to this country in vast quantities, often reeking with disease, from French growers. Bulbs from doubtful source should be plunged in sulphur for a week before planting lest spores of the fungus be planted with them. Every bulb should be in its flowering quarters by September at the latest. Unless the variegated forms are required to complete a collection we would advise that they be planted far away from the type plant, for these are among the first to show traces of disease, and are often for a series of years more or less affected. In the case of a bad outbreak of disease every stem should be cut to the ground level and burned, and the soil deeply hoed and treated with a fungicide specially prepared for dressing soils, or it may become impossible to grow *L. candidum* in that garden for several years. G. B. MALLETT.

(To be continued.)

TREES AND SHRUBS.

TRANSPLANTING LARGE TREES.

WHEN making new gardens or altering old ones it is often found necessary to remove trees which are too large to lift in the ordinary way and which it is not desirable to destroy. By moving large trees, too, an effect is produced at once which would take many years to obtain. To move large trees successfully move a large ball of soil with them, and to do this planks and rollers or lifting machines have to be employed. The machine shown in the illustration is one of Barron's Tree-lifting Machines, and with this a weight of 7 tons can be carried. The mechanism of this machine is very simple and quickly understood by intelligent and careful workmen. A good view of the fore-carriage is obtained in the illustration, the back part being somewhat similar in appearance. The fore and back parts of the machine are connected by two strong beams 16 feet in length. As these beams have to support the whole weight they are very strong, being 10½ inches in depth and 6 inches wide. The two beams are 5 feet apart, and the top of them is 6 feet from the ground. On the beams are two movable



LIFTING AN ELM TREE AT KEW WITH ONE OF BARRON'S MACHINES.
(This machine is one of many designed by Mr. Barron of Elvaston, Derby.)

rollers composed of central iron bars encased in wood. These rollers are fitted with cogs and clutches at the ends, and each end of each roller is capped with iron in which are holes for crowbars. Strong ropes are fastened to the middle of the rollers, and on these the weight is pulled up.

When beginning to move a plant with this machine the size of the ball should first be marked out, 6 feet to 6½ feet diameter being a fair size. It should then be decided in which direction the machine is to be run on to the plant. Then the front and back sides of the ball should be dug out until the lowest roots have been found. After this a hole must be tunnelled through the centre of the ball below the roots wide enough to admit two planks, which should be of Elm or Oak, each 11 inches wide and 4 inches thick. These planks should be free from the ball for 9 inches on each side. When this is done an Oak board 9 inches wide and 1½ inches thick should be worked under the ball above the ends of the planks. When this has been done dig out the other two sides of the square and work two other 9-inch boards under the ball so that the ends rest on the ends of the two previously put in. These boards are for the purpose of holding up the sides and corners.

The next thing is to bind the ball tightly round with strong canvas, using narrow battens of wood to save the cords from cutting into the soil. This done, the plant is ready for the machine. To get the machine on to the plant the beams must be lifted off the hind wheels and carried across the hole, afterwards fitting them on again. Stand all the wheels on good planks before any lifting is done. Before beginning to lift four good ropes to act as stays must be fixed on the tree. When everything is ready the ropes on the rollers are fixed under the free ends of the centre planks, and lifting can be commenced. This is done by means of crow-

bars fixed in the holes in the ends of the rollers, ropes being fixed on the ends of the crowbars for men to assist in the raising. When the ball has been raised to the desired height, strong chains are fixed to rings on the beams and passed beneath the ball to help support the weight, chains also being used to support the corners. The stays must also be tightly tied to the beams.

If the tree is to be moved a considerable distance horses will have to be used, but if a few hundred yards only it is advisable to take the plant the whole of the distance with men, using planks for the wheels to run on. In any case the weight should be got off the hole before horses are attached. When making the new hole for the plant a channel must be left in the middle for the bottom planks to settle in, so that they can be easily taken out. When in position the plant is let down again by means of the crowbars, the hind wheels being taken off to remove the machine afterwards. When the middle planks have been taken out care must be taken to ram the channel full of soil, or the plant may settle too much one way or the other. The tree shown in the illustration is an Elm 34 feet high, the ball weighing about 6 tons, moved a few months ago at Kew to help block out an unsightly building.

Besides being of value for removing large trees, this machine is very useful for moving large tree-roots, it being possible to move a butt of large dimensions in half an hour which would take hours by other means. Such a machine as the one shown is warranted to carry 7 tons. To move a weight of from 5½ tons to 7 tons about seventeen men are required, but for tree roots of a couple of tons or so eight men only are necessary. When using such a machine it is absolutely necessary that all planks, ropes, and other material used should be perfectly sound and strong, and everyone at the work should give his whole

attention to it, for through using poor material or through inattention a serious accident might readily happen.
W. DALLIMORE.

NOTABLE GARDENS.

RARE PLANTS AT MOUNT EDGCUMBE.

HAPPENING to be in the neighbourhood of Plymouth some days ago I was afforded the opportunity of visiting, in the company of a gentleman who owns the most beautiful rock garden in the South-West, the grounds of Mount Edgcombe. After inspecting the great Orange Trees, alluded to in THE GARDEN of October 3, which were standing in large tubs in the Italian garden near the Orangery, and were marvels of culture, many fine trees in the vicinity were admired. Among these were three enormous evergreen Oaks (*Quercus Ilex*), a Holly over 7 feet in girth and apparently about 60 feet in height, and giant Cedars of Lebanon, which previous to the disastrous blizzard of March 11, 1891, swept the ground with branches, of which they are now for the most part bereft. This same blizzard uprooted the finest of the Cork Oaks, of which, however, there are some about 50 feet in height still left. A Plane Tree some 80 feet in height, a Lucombe Oak 70 feet, and a Stone Pine 50 feet were also noteworthy. Two specimen trees of *Magnolia grandiflora* standing on the lawn, which they touched with their foliage, were 20 feet in height and carried many expanded blossoms. *Abutilon vitifolium* was largely represented, some of the finest being nearly 20 feet in height, a similar stature being reached by the largest of the Fan Palms (*Trachycarpus excelsus*), while a vigorous young tree of the lovely *Embothrium coccineum* was remarked. Attractive as are the main gardens, they undoubtedly yield in interest to the Terrace Garden, distant about a mile and a-half, where many tender and rare shrubs and plants are grown that are uncommon even in the most sheltered gardens of Southern Cornwall. This garden is situated on the upper portion of a steep slope facing the western end of the breakwater and looking out over the English Channel, a fort lying at the water's edge immediately beneath, but hidden from view. Every step along the path that mounted the hillside, bounded here and there by walls backed by slopes of soil, revealed fresh surprises. A young Olive Tree was the picture of health; there were good specimens of *Acacia dealbata* and *A. ovata*, and *A. longifolia* was in flower. A *Camellia*, trimmed into standard form, had a branch-spread of almost 20 feet; *Leptospermum arachnoideum* was 12 feet high and 14 feet through; *L. scoparium* was still taller, and there was a good example of *L. bullatum*. The largest specimen of the Australian *Myoporum laetum*, with its pretty transparent-spotted leaves, was about 15 feet in height, and was the finest I have seen on the mainland. A young tree of *Araucaria Bidwilli* looked particularly robust and healthy, as did the Camphor Laurel and an Oleander 6 feet in height. A large shrub of *Pittosporum Tobira* was seedling; there were good specimens of *Candollea tetrandra*, *Callistemon speciosus*, and *Corokia buddleioides*; and amongst other shrubs growing without wall protection were *Clethra arborea* still in flower; *Lagerstrœmia indica*, 3 feet high, that flowered in 1902, but not during the present season; *Correa cardinalis*, *C. magnifica*, *C. bicolor*, *Olearia nitida*, *Rhapiolepis ovata*, *Xanthoceras sorbifolia*, *Ilicium floridanum*, and *Jacaranda mimosæfolia*, while a small but sturdy *Grevillea robusta*, which had passed a winter unprotected, gave good promise. Growing against walls were *Cassia corymbosa* in flower, *Plumbago capensis* also in bloom, *Abelia floribunda*, *Mitraria coccinea*, *Calceolaria Burbridgei* 8 feet in height, still in flower, this plant and others, growing in the open borders taking no harm during the winter; *Lasiandra macrantha* with woody stems,

several feet in height and fresh growth, covering the wall but not yet in flower, and *Luculia gratissima* looking very healthy, but which Mr. Richards, the head gardener, informed me had never bloomed. The spot is very sheltered with *Ilex*es and other trees, but it is a question whether a little clearance, in order to admit more sunlight, would not result in the last two plants acquiring a more floriferous habit. Close at hand the front of a summer-house was covered with *Solanum jasminoides*, which on October 10 still carried an abundance of its fragrant white flowers. Tree Ferns were represented by two fine examples of *Dicksonia antarctica* and *Woodwardia radicans*, *Lomaria Magellanica* and the common Maidenhair Fern were growing well, while *Asparagus Sprengeri* was evidently happy in its surroundings. Besides the common Fan Palm *Cocos australis* and *Phoenix canariensis* were present, as well as a fine plant of *Cycas revoluta*, which has been out for some seasons. Indian Azaleas were great shrubs, *Agapanthus umbellatus* bears its blue flower-heads in profusion in the late summer, and *Clivia miniata* passes its winters in the open. *Browallia speciosa* was still in flower, as was *Lavatera assurgentiflora*, a handsome, shrubby Mallow that is quite hardy at Mount Edgcombe. *Gerbera Jamesoni* grows and flowers, *Calceolaria violacea* has made a fine bush, and *Echium densiflorum*, raised from seed sent from the Canaries but now a large plant, blooms freely. Two stretches of retaining wall, about 5 feet high, are covered to the base with the grey-green foliage of *Lotus peliorhynchus* hanging in a thick veil from the top. These must have presented a pretty picture when studded with the crimson lobster claw-like flowers. This *Lotus* cannot be left unprotected in the open during the winter in many gardens in the South-West.

S. W. FITZHERBERT.

NOTES ON HARDY PLANTS

BULBOUS PLANTS TO GROW BENEATH TREES.

KNOWING how welcome the flowers are which adorn the ground beneath the woodland trees, we, imitating Nature, should use them for the same purpose in our cultivated grounds; sufficient advantage is not taken of these bulbous plants for the embellishment of places overshadowed by trees. Such places generally have no other covering than dead leaves. Of flowering plants for this purpose bulbous plants are of great service, first, because of their variety, and, secondly, because most of them blossom at a time when flowers are scarce, and the humblest then has its value.

Now is a favourable time for planting bulbs if we wish to enjoy their flowers from early spring and during the summer. The following are the best for the purpose in view: Bear's Garlic (*Allium ursinum*) grows in moist situations in the woods; its white flowers appear in May and June. Golden Garlic (*Allium Moly*) will grow in dry and well lighted situations. The *Anemone* genus furnishes several species. *Anemone Pulsatilla* produces pretty violet-coloured flowers in April and May. The Wood *Anemone* (*A. nemorosa*) gives during March and April pretty pure white blooms; there is a double form of this. *A. sylvestris*, which prefers sandy soils, bears larger flowers in May; they are pure white and erect. The two last species, with their underground rhizomes, soon cover a large surface of ground. In borders containing clumps of trees *Anemone Hepatica* can be planted. Its flowers are white, blue, or pink, single or double, and are produced from the month of March. *Corydalis bulbosa* and *C. tuberosa* are two *Fumitories* with white or red flowers which like the shade, and blossom in April. The Spring *Crocus* (*Crocus vernus*) with its erect flowers succeeds very well under trees, and blooms in February and March. *Cyclamen europæum* with its pink or white flowers, and *C. neapolitanum* with mottled leaves and pink flowers, may be reckoned among the prettiest plants which thrive in leaf-mould in cool and shaded situations; they flower

in September and October. The ground may be carpeted with them. A covering of leaves is sufficient to protect them during winter. *Dietrys spectabilis* with its elegantly arched bunches of flowers may be used as a border plant to large groups of trees. *Eranthis hyemalis* opens its beautiful yellow flowers in January and February; it is the companion of the *Crocus* and the *Snow-drop*. The *Fritillary* (*Fritillaria Meleagris*) with its pendent bells, flowers curiously variegated, and variously coloured is very pretty. It does well in cool situations and in leafy soils. It blossoms in May.

The pink Christmas Hellebore (*Helleborus niger*) does equally well beneath trees; so does *Iris germanica*, which, if it does not produce many flowers, at least has abundant and pleasing foliage. It need not be said that the *Convallaria majalis* is the plant *par excellence* to grow under trees. Two other species of this genus are also good for this purpose. The Solomon's Seal has arched stems of about 30 centimetres high, and white pendent flowers; *Convallaria multiflora* stands higher, but its flowers are smaller. These two plants blossom during May and June; their stems are suitable for bouquets, and they flourish anywhere. *Muscari comosum* is very curious with its violet-coloured hairy flowers in bunches; *M. botryoides* with its sky-blue globulous flowers is very interesting; and *M. racemosum* produces a compact bunch of blue Plum-scented flowers. These plants prefer light soils and light situations. The *Narcissus* with its pretty spring flowers can be used with equal success. We will mention the species which succeed best: *N. minor*, *N. pseudo-Narcissus* and its numerous single and double varieties, *N. incomparabilis*, the single and double Jonquil (*N. odoratus*), the Great Jonquil (*N. odorus*), *N. poeticus* and its varieties, and *N. biflorus*. All these generally do well, grow strongly, and form groups of great beauty. *Leucojum vernum* likes the shade, and in March and April bears flowers which resemble the *Snowdrop*, but are larger.

The genus *Ornithogalum* is represented by three interesting species. *O. umbellatum* produces in May and June heads of white flowers, which open at twelve o'clock and shut at three; this is a plant for light and sandy soils. *O. pyramidale* attains a height of 60 centimetres and more; it produces long clusters of white flowers in June. *O. pyrenaicum* also gives in June long spikes of yellowish white flowers.

Phalangium Liliago has stems some 50 centimetres high, terminating in June and July in bunches of white flowers. *P. ramosum* has smaller but more numerous flowers, and its stems are branching. These plants like light soils, and their blossoms are very suitable for bouquets. The Squills are the Hyacinths of the woods, grow everywhere, and their flowers are charming. *Scilla bifolia*, L., produces in March and April star-shaped flowers of a beautiful sky-blue colour. *S. nutans*, which is blue, and its varieties with white or pink flowers, produce clusters of very odorous pendent blossoms. *S. cernua* differs from the preceding, especially in its conical spikes of upright flowers; there are also blue, white, and pink varieties. *S. patula* has larger pendent flowers of a fine blue colour; it blossoms in May and June, as does also the campanulate Squill (*S. campanulata*), whose numerous blue, white, or pink flowers are very pretty. These species are hardy, grow freely, and form one of the most pleasing ornaments of our woods. The Autumn Squill (*S. autumnalis*), which produces its spikes of blue flowers in August and September, must also be mentioned. The wild Tulip (*Tulipa sylvestris*) has greenish yellow flowers, which are slightly fragrant.

CULTURE.

The planting of the bulbous or rhizomatous species which we have enumerated ought to be done in the autumn, from September to November. If the soil appears exhausted in the spot chosen for planting, a little fresh should be mixed in. The spot where the bulb is placed should be marked by a stake. The dissemination of the different kinds is an affair of taste. Examples of the different sorts may be planted here and there, so as (having regard to the different times of flowering) to mingle

the forms and colours. To produce the most pleasing effect take care to associate the bulbs whose foliage is often limited with leaf-bearing plants, such as the Ferns, Periwinkle, St. John's Wort, &c. In conclusion we think it useful to give a hint to the amateur concerning the expense which may be incurred by undertaking such a plantation of flowering bulbs, for the plantation necessarily demands a great number of bulbs if one wishes soon to enjoy a good effect, but it is an expense that occurs but once, for the bulbs increase and every year adds to the effect.

JULES RUDOLPH in *Revue Horticole*.

THE ROSE GARDEN.

ROSE CAROLINE TESTOUT.

THE accompanying illustration of this Rose is not one of a standard tree, but of a bush. The plant is a curiosity in its way; it has been in my possession about seven years. Originally a pot Rose, I planted it about five years ago. Shortly after, as if grateful for its new treatment, it made a gigantic shoot some 6 feet high and at least three-quarters of an inch in diameter at its base. This grew up straight, and by cutting away the rest of the bush and pruning carefully I have got apparently a fine standard growing on a Briar. This bush frequently carries thirty good flowers at a time, and is hardly out of flower from the middle of June till November. I cut a fine flower on November 3, and on that date there were plenty of buds. I have reason to believe that this plant is now largely on its own roots. The curious part about it is that the plant has never attempted to make any growth from the ground since the same was cut away some five years ago, and is growing on a single stem. I doubt if there is a better all-round garden and show Rose than Caroline Testout; a bed of a dozen plants is never without flowers from June till November.

HERBERT E. MOLYNEUX.
Brantwood, Balham.

JOTTINGS ABOUT ROSES.

MULCHING AND ITS EVILS.

"PHILOMEL" never wrote truer words than where he says (page 280) that "as covering the soil with manure after planting, I believe a more baneful practice has never advised." I am in complete agreement with him on this subject, and am confident that frost itself is not responsible for many losses amongst Tea and Hybrid Tea Roses in this operation. It is difficult to understand how such a practice ever came into vogue, and I can only imagine that it is a relic of those bygone years when Rose gardens were mainly comprised of the old vigorous growing sorts, such as Paul Ricant, Souvenir de la Malmaison, Coupe d'Hebe, and Charles Lawson. Roses such as these, together with the coarser-growing Hybrid Perpetuals, could endure—probably were improved by—heavy mulchings of raw manure from the foal yard. But times have changed, and now that Tea and Hybrid Tea Roses are in possession of the field, methods of treatment must change also. We have to bear in mind that the greatest enemy of the Tea Rose is not frost but damp. All experts seem agreed upon one point, i.e., that beds for Tea Roses should be raised above the natural level. Having taken this precaution, what can be the use of defeating its very object by smothering the beds with long manure, which naturally tends to retain moisture,

and is not of the slightest use as a protection? Considering that most of our Tea Roses are worked on the Briar, it goes without saying that the actual roots themselves do not require protection. Then there are other objections to the practice, such as the ugliness which it entails, as well as the fact that we are prevented from surfacing our beds with carpets of alpine flowers.

MULCHING WITH LIVING PLANTS.

I have no sympathy with those who tell us that we must set out our Roses in hard lines and allow no other flowers to be used in conjunction with them. This is the gospel of the Rose exhibitor, and has nothing to do with those who are striving for a flower garden beautified with permanent and not transitory occupants. It is easy to break away from the orthodox system of spring and summer bedding with its often faulty colouring, now that we have so many glorious ever-blooming Roses, as well as a wealth of delicately beautiful hardy plants to serve as a restful carpet to the Rose flowers. I have grown Daffodils amongst my Tea Roses for some years, and always with the best results. When April comes the Roses are decked with innumerable ruby-coloured shoots, and beneath this exquisite canopy the Daffodils appear

several friends who have admired it this summer. Then there is the tiny Stone Sand-wort (*Arenaria balearica*), which, though happier on a rock, will succeed in this way, but cannot be depended upon in winter on the level. Many other plants will occur to those who will give the matter a little thought, and I append the following list simply as some help to those who have not had much experience with alpine plants. This list does not pretend to be complete, neither are plants of vigorous habit or which run at the root included. *Arabis subretioidea*, *Aubrietia* in variety, *Campanula muralis*, *C. garganica* and its variety *hirsuta*, *Erodium chamaedryoides*, *Frankenia laevis*, *Gaultheria procumbens*, which seems to grow almost as well in sun and loam as in peat and shade; alpine *Phloxes*, *Saxifrages*, such as the double Meadow Saxifrage, which disappears in early summer; the mossy Saxifrages, such as *muscoidea*, *purpurascens*, *Rhei*, and others, and also the varieties of *S. oppositifolia* and *S. retusa*; *Sibthorpia europaea*, numerous *Thymes*, especially the variety *lanuginosus*; the Foam Flower (*Tiarella*), *Veronica repens* and *prostrata*, *Viola rothomagensis* (Rouen Violet), and the many lovely Tufted Pansies. "This is all very well," I hear someone say; "but how are we to mulch, earth up, and



CAROLINE TESTOUT AND OTHER ROSES IN A SUBURBAN (LONDON) GARDEN.

in striking contrast. There are few spots more suited to the growth of the many diminutive alpine plants than a well-made Rose bed; indeed, plants which are grateful for a humid position will often thrive better in the gentle shade given by the Roses than in the rock garden. *Gentiana acaulis* was always difficult to persuade to bloom on my dry soil until I placed it on the margin of a Rose bed, where it now rewards me annually with some flowers.

Other plants which I have found suitable for carpeting Rose beds are *Hutchinsia alpina*, a lovely little evergreen plant much like a miniature Candytuft; *Linaria hepaticifolia*, the tiny Liverwort-leaved Toadflax, not much higher than a moss; *Mentha Requienii*, given me by Mr. Milburn, of the Bath Botanic Garden, and specially recommended in "The English Flower Garden" for this very purpose—it is scarcely hardy; *Polygonum capitatum*, only half-hardy, but a lovely creeping plant, with prettily-marbled leaves and little round heads of pink blossom. I have given it away to

protect our Roses if the surrounding soil is enveloped with plants?"

HOW TO MULCH.

Such a question is frequently asked, and is not difficult to reply to, but as it really comprises two distinct questions I will deal with each separately. First, there is the question of mulching, to which I have already referred. The system of mulching with long, strawy manure is undoubtedly wrong, but there is no reason why those whose gardens are situated in high and dry spots, and to whom mulching is absolutely essential in very dry years, should not adopt some better methods of procedure. The old way is to put long manure on the beds during the months of November and December, and afterwards to dig in the straw in spring. Apparently the straw is only dug in to prevent unsightliness, because no one can pretend that it is of any nutritive value, and on light land it undoubtedly promotes mildew. The whole of this question is ably discussed by Mr. Foster-Melliar

in his "Book of the Rose," and is summed up in these few words: "Roses drink but cannot eat." Therefore when we put solid manure upon our Rose beds we must let it be in a form which the roots of the Roses can easily assimilate. I always mulch in the spring just after pruning with old hot-bed manure which has been finely chopped up and turned several times. If to this be added some decayed cow manure and a little bone-meal it will be found more efficacious for Teas and Hybrid Teas than any other kind of mulch. And the chief reason is this, i.e., that after the April rains it will be found that this old short manure does not interfere with hoeing, because it is so soon washed into the soil.

A. R. GOODWIN.

(To be continued.)

ORCHIDS.

MILTONIA VEXILLARIA.

AMONG a collection of Orchids *Mil-tonia vexillaria* is always much admired, but it is to be feared that when admirers attempt its culture their efforts are often doomed to failure. Many find a difficulty in successfully growing this Orchid, as one may easily know by the yellowish leaves and weak flower-spikes one often meets with in gardens. Briefly, the culture of *Mil-tonia vexillaria* is this: Give it the same treatment as *Odonto-*

glossums, except that a rather warmer temperature is necessary. It is important that the temperature should fluctuate as little as possible, as few Orchids are more susceptible to this than *Mil-tonia vexillaria*. Many good growers keep their plants with the *Odonto-glossums* during the summer months, and in winter place them in a warmer house whose temperature is 55° Fahrenheit. Being ever-green, this *Mil-tonia* requires a certain amount of water during winter, but great care is necessary not to give too much, especially in the neighbourhood of large towns, where often for days together the air is charged with fog and other impurities, thus rendering evaporation almost impossible. Mr. H. J. Chapman, who grows this Orchid well, recommends spring as the best season for potting. The new roots make their appearance about this time, and if repotting is carried out then they quickly get hold of the new material. Equal parts of peat and sphagnum moss form a suitable compost.

Some of the best varieties are: *M. alba*, the flowers white except for a faint rose tinge on the sepals and petals; *albicans*, white, with a yellow disc; *Memoria G. D. Owen*, one of the finest, the flowers are large, rose coloured, with a broad dark crimson band on the lower sepals, the rose lip has a dark-coloured disc, a very striking variety; *chelsiensis* is also fine, coloured, and marked with dark lines; *sanderiana* has pale-coloured sepals, deeper petals, the lip having a dark blotch at the base; *rubra* with flowers bordered with rose-white; *leucoglossa*, pale rose, with white lip and *Fairy Queen*, white, with a rose coloured disc.

A. P. H.

ORCHIDS AT THE GLEBELANDS, WOODFORD.

CALLING a few days ago at the Glebelands Woodford, the seat of J. Gurney Fowler Esq., the following Orchids were particularly conspicuous among the many other beautiful kinds which are a special feature at Glebelands. The first to attract attention was

Cattleya labiata var., one of the albinos, or nearly an albino. The flowers were all that could be desired in form and shape, the sepals and petals pure white, and the front lobe of the lip white around the margin. The whole of the centre is veined with a deep and pleasing shade of purple colour, imparting to the flower an extremely refined appearance. It can be safely said that this variety is one of the most distinct and beautiful of the section of the white *Cattleya labiata*.

Lelia Mrs. Mary Gratrix.—This is one of the most charming hybrids yet raised, and is a cross between *L. cinnabarina* × *L. digbyana*. The flowers are about 5 inches across. The lanceolate sepals and petals are of a charming shade of buff, primrose, and light orange-yellow, with a very faint suffusion of rose. The distinctly three-lobed lip is of clear light yellow tinged with rose on the front and side lobes, and very curiously edged with an irregular fringe, which is imparted by the male parent. This hybrid has received two awards of merit, viz., at the Royal Horticultural Society's meeting at the Drill Hall in October, 1899, and at the Manchester Orchid Society's meeting two days later, a distinction it well deserved.

Cattleya × *Maroni*.—This is another charming hybrid, and raised between *C.*



MILTONIA VEXILLARIA. (From a drawing by H. G. Moon.)

velutina × *C. dowiana* var. *aurea*, the seed parent asserting itself in the form of the labellum very distinctly. It combines altogether the character of the two parents both in form and colour. The sepals and petals are of a peculiar bronzy yellow or old-gold tint, the labellum being very striking, in that it has a narrow base, with a somewhat rounded front lobe. The three-lobed lip is veined and tinged with a very rich purplish crimson colour, the more pronounced veining being raised above the surface; the base of the labellum is of a lovely shade of clear yellow. This hybrid is strong and robust. Seven flowers are often borne on an inflorescence, and to add to the beauty in the colouring of the flowers they are also deliciously fragrant. It was unanimously awarded a first-class certificate by the Royal Horticultural Society's Orchid committee in November, 1898.

Cypripedium Troilus (*C. Sallieri* hyeanum × *C. insigne* Sanders).—This is a remarkably handsome and neat-habited hybrid. It was first exhibited by Mr. Fowler at the Drill Hall in December, 1901, when it was given an award of merit by the Royal Horticultural Society's Orchid committee. It has proved a very distinct cross, but resembles the male parent in a far greater degree than the female, especially in the dorsal sepal, which is over 2 inches across, and of an exquisite shade of yellow, with a few faint lines of a bronzy hue margined with a pure white band of at least half an inch in depth. The petals and lip are of a pleasing yellowish shade with a faint suspicion of a brownish tinge, which imparts a very pleasing effect to the flower. It is a magnificent kind.

Cypripedium × *fowlerianum* (*C. harrisianum* superbum × *C. bellatulum*).—Though this is a comparatively older cross, it is one of the best, as also one of the darkest and richest in colour of its section, and was the first to beat the true *C. harrisianum* superbum for the richness of its dark purple and nearly black tints. The dorsal sepal is broad, and the lateral margins reflect slightly; it is of a deep rose colour, heavily veined with vinous purple, and having a whitish marginal band. The petals are of a very rich claret-purple, with red and green veinings, and the lip is long, dark purple in colour, with a green base. It is well worthy of a first-class certificate. Many other interesting and beautiful Orchids were in bloom in this collection. The above are only a few of the many good things in the Glebelands collection.

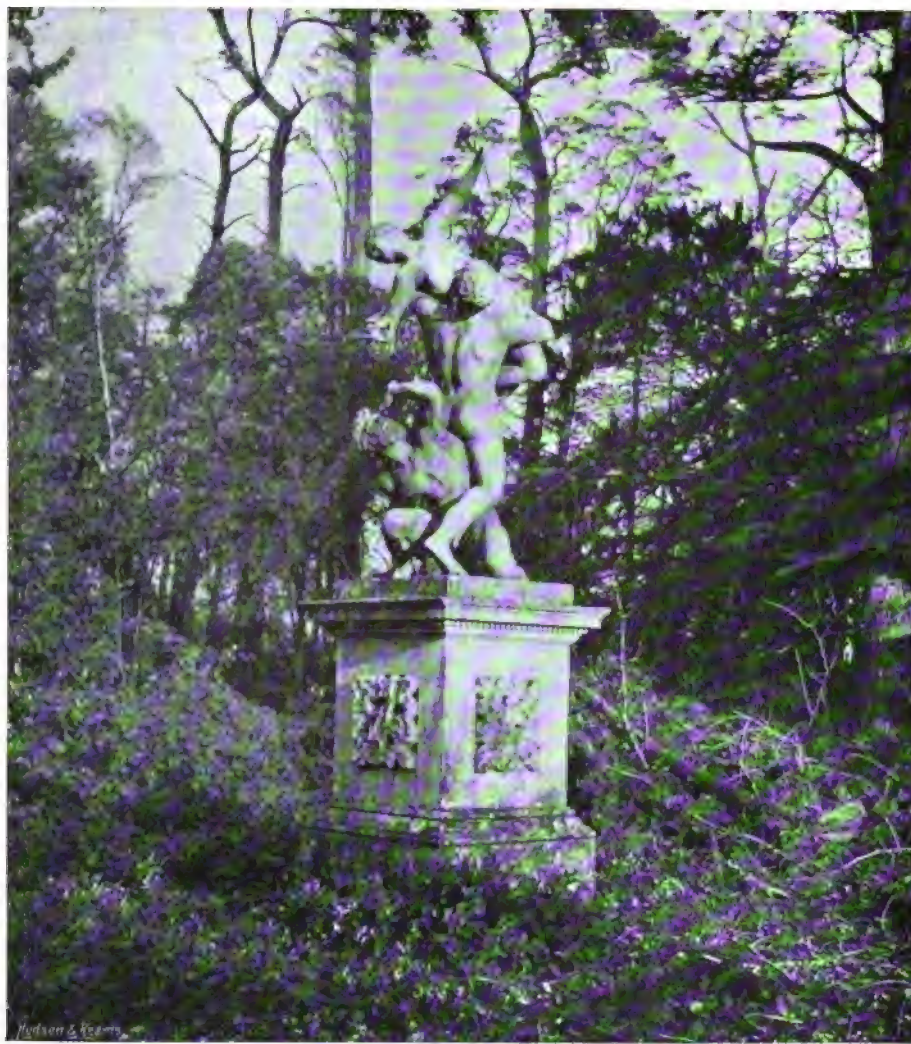
ARGUTUS.

GARDEN ORNAMENT.

LEADWORK.

(Continued from page 339.)

IN the present century the superabundance of these leaden statues has been greatly modified. At the beginning of this century whole regiments of leaden Venuses, Moors, Jupiters, angels, saints, nymphs, and fauns were converted into bullets. They were, indeed, threatened with total extermination, but, thanks to the prevailing taste for things ancient, some of them survived, and they have once more become fairly fashionable, and may the day be far distant when those which have resisted the hand of time and of vandalism will be dislodged from their charming havens of rest. There used to be an immense number of leaden statues at Chiswick, which was dismantled in 1892 by the Duke of Devonshire, but, with Lady Macbeth, we may well ask, "Where are they now?" At beautiful Burton Agnes, in Yorkshire, there is a fine leaden Fighting Gladiator, and in the gardens of Studley Royal (Fountain's Abbey), Lord Ripon's seat in Yorkshire, in one of the lakes, rises above the level of the water a noble group of leaden nymphs and fauns. In the lovely old gardens at Melbourne, Derbyshire, leaden



THE RAPE OF THE SABINES AT PAINSHILL. (After Giovanni da Bologna.)

figures abound, and they are of such great excellence, both in design and perfection of workmanship, as to be almost unique. In the formal gardens there are two heroic-sized figures of Perseus and Andromeda, a flying Mercury, copied from Giovanni da Bologna, two slaves carrying vases, and several Cupids, very busy with bow and arrow, and doing general mischief to lads and lasses. A tolerable group of Cain and Abel existed until recently in the great grass quad of Brasenose College, Oxford, but, although a very noble work, it appears to have been improved away. Glenham, in Suffolk, boasts of a quaint representation in lead of the Duke of Marlborough and of Prince Eugene, and at Temple Densley, near Hitchin, stands a delightful figure of Father Time with an hour-glass in his hand.

Lead lends itself to the reproduction of life-sized animals, such as horses, dogs, stags, and lions, which look exceedingly well when placed upon lofty pedestals, or else arranged in the centre of a lawn, or in the neighbourhood of lakes, fountains, or brooks, but care should be taken not to follow the fashion of our ancestors, who painted these animals in their natural colours, with a result which, as Mr. Pepys would have remarked, "was unseemly," and unworthy of anyone with the least developed taste. Far better is it to gild, silver, or bronze them, but they look their best unadorned by any meretricious aids to deception. Lead

they are, and lead they should remain. A judicious use in gardens of leaden statuary, vases, tanks, and fountains is one highly to be recommended. The beautiful Italian vase at Drayton, of which we give an illustration, is one of the most graceful works of its class extant. As to the industry of making these effigies, the revival of it is to be recommended as likely to become, once the fashion of using them attains popularity, exceedingly remunerative. Terra-cotta vases and statues do not withstand our climate, and they are very liable to be broken, whereas leaden figures which have been in existence some 200 or 300 years are as perfect to-day as when they were first placed in position. A selection of good models is all that is required for what, after all, is one of the cheapest forms of outdoor decoration. All eccentricities, however, should be avoided, such as little huntsmen, groups of shooters, and other trivialities, which only rouse a smile of exasperation and a longing for the right to melt them down. However, even some of these when they are genuinely antique have the merit of quaintness. I remember, many, many years ago, seeing in a Norfolk garden a party of leaden figures in the costumes of the last century seated at a table, and evidently having what our American cousins would call a high old time, for before them were goblets and bottles, and one of the gentlemen had his gun leaning beside him. The ladies were dressed à la Watteau, and one fair dame had

a spaniel on her lap. Although they were some thirty years ago in a very dilapidated condition and thickly coated with Moss and Lichen, they still retained here and there evidences of having been painted to represent life, which must have rendered them simply frightful. As they were they had a haunted look, admirably in keeping with the great Yew arbour in which they had sat in enchanted stillness for something like 150 years.

RICHARD DAVEY.

(To be continued.)

ROYAL HORTICULTURAL SOCIETY.

NEW HALL AND GARDEN.

WE take the following information from the journal of the society just published, and hope that the desire of the council expressed in the extract we give will be attained. It is satisfactory to know that the scientific aspect of horticulture is not to be forgotten. We have referred to the new hall and garden on many occasions, but we feel sure those readers of THE GARDEN who are not Fellows will remember the great work that has been accomplished by the society for horticulture, and support the appeal of the secretary. After the great gifts from Baron Sir Henry Schröder, Bart., and Sir Thomas Hanbury, K.C.V.O., the Fellows too should do their share with keener zest. It would be a red-letter day indeed if both hall and garden were to be opened without debt. All interested in horticulture, whether Fellows or not, may be trusted, we hope, to take their share in a great and ennobling work.

"When, in 1887, the society took the first step of its new departure, or rather of a return to its old lines of a strictly horticultural policy, abandoning all side issues which have such a tendency to obscure and eventually to swallow up the main one, whoever thought that in 1903 it would be within actual sight of a new hall and offices, and a new garden, of its own? In that critical year of 1887 there were only 773 subscribing Fellows, yielding an income of £1,938; the expenditure was £2,894 and the floating debt £1,152. The new policy, or the return to the old one, of sticking to gardening pure and simple, has, up to December, 1902, increased the number of subscribing Fellows to 6,228, yielding a subscription income of £6,982; the debt has been paid off; and investments accumulated yielding a further income of £437 a year!

"Over and above all this, which one may call the natural outcome of a gardening policy, there has arisen among the Fellows a double demand and want, one for a new and satisfactory hall and offices of our own, the other for a new and satisfactory garden of our own. At one time it seemed as if these two great and acknowledged wants would rend the society asunder and destroy each other, like the birth of twins struggling for primogeniture. Each side acknowledged the legitimate aims and objects of the other; each at heart felt kindly disposed toward the other, but neither was willing to yield precedence, fearing that if it did so its own genesis would be postponed until the Greek calends, for each appeared to involve so large an outlay as to bid fair to cripple the power of the society, as regards the other, almost indefinitely.

"In this condition of things two noble benefactors have come forward to the rescue. Baron Sir Henry Schröder, Bart., has taken up the cause of the new hall with his accustomed energy, starting the building fund with a donation of £5,000, and Sir Thomas Hanbury, K.C.V.O., has purchased the famous garden of the late Mr. G. F. Wilson at Wisley at a cost of £5,000 and given it in trust for the use of the society as long as it can utilise it and cares to retain it. And thus it comes to pass that the completion of the society's one hundredth year, in March, 1904, will practically see it in possession of a magnificent hall and offices of its own and of a freehold garden, of its kind equal, if not superior, to any in Europe.

"The Fellows of the society cannot be too grateful to Baron Schröder and to Sir Thomas Hanbury for their munificent and timely liberality, but it is universally acknowledged that great privileges entail corresponding responsibilities and duties. These great gifts entail the responsibility of their completion. Fifteen thousand pounds is still wanted to complete the new hall and offices, and £5,000 is needed to equip the garden. Surely, surely the Fellows will find these necessary amounts? Let all who wished for a new hall send a subscription to it now, and let all who wanted a new garden send a subscription to it likewise. The bone of contention as to which project should have precedence of the other has been taken away by these two kind and generous friends of the society; now the duty falls upon the rank and file of the Fellows to join together to complete the one and to equip the other. We have 7,000 Fellows, and if every one would send an average of £3 a head both hall and garden would be complete. Many who, when the hall fund was started, excused themselves, saying, 'No, I should prefer a garden,' have now obtained their wish. Let them now come forward and show that it was not a mere excuse by giving liberally towards the garden. For it must be borne in mind that though the garden at Wisley is one of the most beautiful spots you can imagine, and is full of beautiful and rare plants, it is at present only a superb 'wild garden,' and for the purposes of the society needs a scientific department, a vegetable quarter, a fruit garden, and glass houses added, besides dwelling-houses for the staff, the nearest village being two miles distant, and even there no house accommodation to be had. The hall, too, is now half finished, but the funds to pay for it are not yet raised. Financial help is now the one thing needed to make the year of the society's centenary dawn with roseate hue. Surely we shall not appeal to the Fellows in vain?

"It may be said, 'Why not use the society's invested funds?' Because the annual upkeep expenses of both hall and garden will be very large, and if you spend investments you decrease annual income, and if you decrease annual income, how are these increased annual expenses to be met? No, let us all put our shoulders to the wheel, and each and all, small and great, do something—as much as ever we each can—and so endeavour to start the society upon the second century of its existence in prosperity as well as peace. Peace has, we trust, been thoroughly restored by the kind actions of the Baron and Sir Thomas; now let the Fellows themselves combine to secure the much-to-be-desired prosperity. May we seriously entreat everybody to send something, some more than the average £3 a head, some less; but each as best he can, and everybody something?

"It is hoped that both garden and hall will be able to be opened to the Fellows in the early part of next year, but at present it is impossible to admit anyone to either."

THE FLOWER GARDEN.

HYBRID CLEMATIS FOR POTS AND PERGOLAS.

VISITORS to the spring shows at the Drill Hall, Westminster, or to the Temple show in May have for several years past seen very fine exhibits of garden varieties of Clematis grown in pots. At the first-named shows the plants have usually been small, being grown in 5-inch or 6-inch pots, but at the Temple the plants have been large and covered with fine flowers, the plant shown in the illustration giving an idea of their size. These exhibits have done much to popularise the Clematis as pot plants, and the garden varieties are very useful during early spring by those who have to keep a greenhouse gay. Beautiful, however, as these Clematis are in pots, it is a method of culture which does not do justice to the plants, for Clematises never look so well as when they are rambling about in a natural way,

either climbing up the supports and smothering the roof of a pergola or rambling at will and making tumbled and picturesque masses, supported by gnarled and twisted Oak branches, such as is the case with the Clematis in the collection at Kew.

When it is intended to grow specimen plants in pots get good strong one year old plants, on their own roots if possible, and these should be potted into 12-inch pots, two plants being placed in one pot. The pots must be well drained and good fibrous loam two parts and one part composed of mortar rubble, charcoal, and half-inch bones used as a compost. The pots must not be filled very full of soil, as room will be required for top-dressing, the plants having to stay in the same pots for several years.

After potting the plants should be placed in a light, cold house and growth encouraged. At this stage water must be given sparingly or the soil will probably become sour before the time the roots have had a chance to work into it well. As young shoots are made they should be encouraged to grow up strings near the roof for the first year, and most of the flowers should be kept picked off. If this is done a good foundation will be laid for the future. The following spring fix a trellis or wire balloon in each pot and train the growths to these. As growth proceeds the young shoots must be kept tied in or they will soon become badly twisted together. Until the flowers are over they should be kept under glass, but during late summer the lights of the house should be removed. An occasional surfacing with rich soil will do good, and a dressing of lime annually will be beneficial. Soot water and manure water should be given once or twice a week when the pots are well filled with roots.

When planting on pergolas or in masses on rough branches give good loam, and if the soil is not limy lime should be added. There are several different types which may be used for either purpose. They are the Jackmani section, the Lanuginosa section, the Florida and Patens section, and the new Coccinea section. Of these sections the Florida and Patens are the first to flower. Outdoors the Patens section is usually well in flower in May, the Florida varieties being a little later. All these varieties are very beautiful, and most of them soon make large masses. Neither of these groups require much pruning, and what pruning is done should be left until after the flowers are over. Some of the best varieties are: Fair Rosamond, white, with red bars; Lady Londeborough, silvery grey; Marcel Moser, white, with pink bars; Miss Bateman, white; Mrs. George Jackman, white; Mrs. Quilter, white; Nellie Moser, white, with red bars; Sir Garnet Wolseley, pale blue, red bars; The Queen, mauve; Belle of Woking, double white; Duchess of Edinburgh, double white; John Gould Veitch, lavender, double; Lucy Lemoine, double white; and Venus Victrix, double lavender.

The Lanuginosa type flowers in summer and early autumn when grown outdoors, and the blooms are of very large size. C. lanuginosa is a Chinese species, with flowers 7 inches or 8 inches across, the colour being very variable. Of the many varieties the following are all good ones: Anderson Henryi, white; Belle of Worcester, bluish violet, with white stamens; Duchess of Teck, white; Excelsior, mauve; Fairy Queen, pale flesh, with pink bar, very large; Imperatrice Eugene, white; Lady Caroline Nevill, bluish; La France, purple; Lord Nevill, plum; Marie Lefebvre, mauve; purpureum elegans, violet-purple; Reine Blanche, mauve, with light bar; and Sensation, mauve. This type is the best for pot culture, the flowers being large and well coloured, the shoots being strong. Pruning should be done in spring.

The Jackmani section, of which Jackmani is typical, was first raised through the crossing of C. lanuginosa and C. viticella. The varieties which compose this section form a group of autumn flowerers, August and September being the months when they are at their best. All the varieties flower very freely, and make perfect masses of bloom. There are very many varieties, some of

the best being Jackmani, violet-purple; Jackmani superba, rich dark purple, one of the very best; lilacina floribunda, lilac; Mme. Edouard Andre, red, good; magnifica, reddish purple; Smith's Snow White Jackmani, pure white; Star of India, reddish purple; and Victoria, reddish mauve.

The Coccinea set have been raised within recent years by crossing the scarlet, herbaceous species—C. coccinea—with garden varieties. The result is a distinct set with herbaceous branches, semi-tubular or bell-shaped flowers, and very free-flowering qualities. Countess of Onslow, violet-purple, with a band of red down the petals; Duchess of York, bluish pink; and Duchess of Albany, pink, are the best known. The plant shown in the illustration belongs to this section.

ONCOCYCLUS IRISES. — THE LIME THEORY.

DOUBTLESS the fact will still be fresh in the minds of many readers of THE GARDEN that the late Rev. Henry Ewbank was personally superintending the replanting of his large collection of Cushion Irises in his garden at Ryde when he died. As the replanting at the time referred to embodied some important experiments, the work was carried out in the most systematic way. Of the way itself some details have already been recorded. These experiments amounted to an attempt to cultivate the Oncocyclis Irises more successfully than hitherto by the addition of lime to the soil in which the plants were growing. Some earlier partial experiments or studies of Mr. Ewbank in England were responsible for this, and, again, by Van Tubergen, jun., of Holland, who had specially sent a collector to the native habitats of these plants with strict injunctions to secure some soil in which the plants were found for the express purpose of analysis. And it was indeed while Mr. Ewbank was debating upon the lime theory that the intelligence was received from Holland that "lime" was really the missing link and the chief secret in the successful cultivation of these plants. It is noteworthy that neither Mr. Ewbank nor M. Tubergen was aware of the conclusions the other had arrived at. That this was so, and the greater, broader fact that the conclusions of both gentlemen were in the main and for practical purposes identical, gave considerable colour to the lime theory. Mr. Ewbank was most enthusiastic, and in one of his characteristic letters he regretted that he had not arrived at the same conclusions twenty years before.

I was, however, less firmly convinced, and gave Mr. Ewbank instances of good cultivation where the lime theory did not apply. I further pointed out at the time in THE GARDEN that it was remarkable if the lime theory was to prove the all in all that someone gardening on limestone or chalk had not long ago revealed the fact. However, Mr. Ewbank planted one set, and in another set followed the directions received from Holland. That everything that the planter could possibly think of no one knowing Mr. Ewbank's intense admiration for these flowers will for a moment doubt. It is, therefore, the more unfortunate in these circumstances to have to say the lime theory is practically a failure.

Since Mr. Ewbank's death I have visited the old Parsonage Garden at Ryde, not always at the same season of the year, and have made an inspection of these Irises, but they have not done what it was expected of them; indeed, in very

few instances are any of the kinds forming tufts, I. iberica alone excepted. Many of the Regelia forms are highly satisfactory, and in fine tufts. It is, however, well known how less exacting are these beautiful forms generally. I believe I am giving simple justice to Mrs. Ewbank's gardener at Ryde in saying that these Irises have been cared for and attended of late in the old systematic way and with the same ungrudging care. Had Mr. Ewbank been spared to see as we have seen, he would long ago have made it known that the experiment was a failure. In these circumstances it would be interesting to learn what success had attended the somewhat similar experiments in Holland.

Generally with these plants there is a fair amount of success so far as the flowering of the plants is concerned in the year after importation. This flowering is less reliable in the second year, and in third year many are lost altogether. What then is required is a series of experiments giving various soils and treatment by way of finding out



HYBRID CLEMATIS AS A POT PLANT.

a more permanent method of cultivation. I feel certain failure comes from the smallness of the examples received, and these flowering in the first year materially exhaust the little energy possessed by the plant, and the latter failing to produce a rhizome of flowering size is little more than a weakened bud ever after. Good strong examples at the start such as contained a flowering point with one or more subsidiary growths or buds would at least be a step in the right direction, and afford greater opportunities than at present are possessed by those who would most highly appreciate them.

Hampton Hill.

E. H. JENKINS.

GARDENING OF THE WEEK.

INDOOR GARDEN.

A NUMBER of plants now more or less dormant will require safe storage accommodation for the winter. Those that are quite dormant may be stored in any dark room or cellar if not too damp and where the necessary temperature can be kept. The tubers of Gloriosa and Caladium should be shaken out of the soil and placed in shallow boxes partly filled with fibre. A position under the slate stages if free from drip and not too near the hot-water pipes, where a steady temperature of 56° to 60° can be maintained, will keep them quite safe.

TUBEROUS-ROOTED BEGONIAS

if stored in the same way will be quite safe at a temperature of 36° to 40°. Gloxinia tubers, also the corms of Achimenes, Gesnera, and Tydea, require but a very slight covering of fibre or leaf-soil and about 10° more heat to have them quite safe. Stored in this way the condition of the tubers or corms can be quickly ascertained, and if necessary the fibre may be damped a little. In the case of tuberous and bulbous plants storage should not be attempted until the plants have been quite dormant for some weeks. Calla elliotiana repotted before losing the foliage should be examined two or three times during the winter, and if the soil be very dry a little moisture may be given them; 40° of heat will keep them safely through the winter.

CANNAS AND SALVIA PATENS

if turned out of pots and covered with fine light soil in a shed where frost can be excluded will be safe. Fuchsias frequently suffer during the winter, and to be quite safe with them a greenhouse should be afforded them. They require a little moisture at the root and a temperature of 36° to 40°. Erythrina Crista-galli, Asclepias, Eucalyptus citriodora, and Hydrangeas are safer if the same treatment is given them. The latter may be pruned at the time of housing by cutting out all the shoots that flowered during the current season. Agaves and Aloes that have done duty for the decorator should be wintered in a light, dry house which may range from 36° to 40°. They will require water at the roots occasionally.

LILIU HARRISII

and L. thunbergianum that have started into growth should be placed in a moist greenhouse and exposed to the light. The degree of heat given them should be regulated by the time they are wanted in bloom. Freesias now growing freely should have the assistance of three or more stakes placed inside the rim of the pot, around which two or three strands of matting may be wound.

Schizanthus sown during the early autumn should be so placed as to get the maximum of light. The young plants should now be thinned to three or five to a pot and staked as advised for Freesias as soon as the plants require it. A part of the Gardenias should be looked over for any insect pests and thoroughly cleaned. Afterwards plunge them in a sharp bottom-heat at the warmer end of the stove and syringe them with tepid water two or three times a day.

J. JAKES.

THE FRUIT GARDEN.

WHERE early Strawberries are wanted the first batch of La Grosse Sucrée and Royal Sovereign, an equally

valuable variety, should now be under glass, as the plants must have an abundance of time allowed to enable them to throw up their scapes and perfect their flowers. If the Strawberry house proper is not ready, a spent Melon or Cucumber frame with a little latent heat in the bed and linings will answer very well for a time, provided they are kept well up to the glass, and the roots are regularly attended with water. If worms have found their way into the pots lose no time in dislodging them with lime water. Examine the drainage, wash the pots, and top-dress with rich manure as they are placed in position. Many people plunge their plants or place them on a bed of fermenting material at the outset; but we have never felt quite satisfied with the plan, as the premature excitement of the roots induces a weakly growth of white fibres, which are injurious to the crowns, as they rob them of matter which should go to the formation of leaves and flowers.

CUCUMBERS.

Autumn-sown plants now in bearing will require liberal supplies of diluted liquid at the temperature of the bed. If in pots or boxes, keep adding light rich turf to the roots as they appear on the surface, and renovate the plunging material when the bottom-heat thermometer indicates a fall below 80°. Keep the foliage well up to the glass, but guard against crowding, otherwise many of the old leaves will turn yellow and require removal at a dead time when the knife should be sparingly used. Let the night temperature be regulated by the state of the weather, as nothing is gained by hard firing when external conditions are unfavourable; much, however, may be done by covering with mats or blinds during the hours of darkness, when, aided by steady firing, a minimum of 68° on cold nights will maintain progress until days become longer. On bright days run up 10° or 12°, and whenever the air temperature equals that of the bed give a chink of air to prevent it from rising higher. Keep plants intended for later use steadily progressing. Stop the leaders when they have ascended two-thirds of the trellis, and thin out the side shoots as soon as they appear if all of them are likely to produce more foliage than can be exposed to the influence of light when fully developed. If the fruit is not likely to be wanted remove all male and female blossoms as they appear, tie out the young growths horizontally, and endeavour to get the ridges or hills filled with roots by frequent additions of rich, light, turfy loam in preference to forcing with stimulants, a luxuriant growth which cannot be maintained when winter is upon us and the plants are expected to produce fruit. Look after the weakest plants from the late sowings, as they very often come into use in the months of March and April, when Cucumbers are not over plentiful.

Madresfield Court.

WILLIAM CRUMP.

FLOWER GARDEN.

LILY OF THE VALLEY.

In most gardens this popular flower is required in great quantity, and now is the best time either to renovate old beds or plant new ones. Many of the beds of Lily of the Valley in the open borders fail through sheer starvation. Although this plant needs good drainage, frequently too much leaf-mould and light soil are used in forming the beds. Here in Norfolk some of the best crowns of this useful flower are grown, and I know that a good deal of cow manure is used in their cultivation. Plenty of space is allowed between the rows, and the second year after planting a furrow is made between each row. This is filled with cow manure, which is firmly trodden in and the soil again placed on. Into this the roots eagerly rush, and fine foliage and crowns are the result. One most important point in their culture is keeping the crowns well above ground, in order that the sun and air may mature them. Mulching and watering should be resorted to in dry summers, but never let the mulching material entirely cover the crowns.

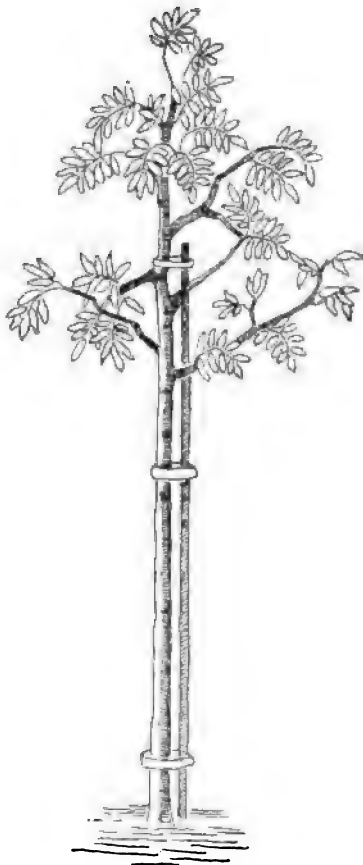
RANUNCULI.

Where the soil is of a tolerably dry nature November planting is far preferable to that of

early spring. The tubers having plenty of time for rooting, the flowers will in consequence be finer and more lasting than from those which have been kept dormant through the winter months. The Ranunculus is not so often met with in the flower garden as it deserves to be, for when well chosen as to colour and planted in a mass they provide a blaze of colour that is not easily surpassed. The soil should be deeply dug and enriched with good rotten manure.

GAILLARDIAS.

These are among the most useful of our hardy border plants; they are simply indispensable where cut flowers are needed in quantity during June, July, and August. One of the chief recommendations of the Gaillardia is its power to endure a long period of drought. I have often seen this plant erect and covered with flower while many of



A STAKE PROPERLY DRIVEN IN.

its associates were prostrated and half dead. Now is the best time to plant them.

ROCKERIES.

In almost all rockeries there are to be found some plants which threaten to overgrow and starve out the rest. Where this is the case they should be much reduced or dug out entirely to give room for daintier subjects. The great majority of alpine plants thrive best in deep soil; in it they can root deeply, and when once rooted they will not suffer from drought, from which they would soon perish if planted in the usual way. Any free loam, with plenty of sand and grit mixed, will suit most alpine plants, but peat is required by some, such as the *Cypripedium* and other mountain and bog plants. In cultivating the very rarest and smallest alpine plants a stony or partially stony surface is to be preferred. Full exposure is necessary for very minute plants, and stones are useful in preventing evaporation and protecting them in other ways.

Ashwellthorpe Gardens, Norwich.

T. B. FIELD.

KITCHEN GARDEN.

ROTATION OF CROPS.

THAT an intelligent system of changing the kind of crop grown on a given space is beneficial and conducive to the production of high-class vegetables is pretty generally known, and now is the time to plan as far as possible where each is to be grown next year. In addition to deep digging, and in some cases trenching the ground periodically, well thought-out rotations are all important. The difference between planning for rotations in a large garden and a small one is great, and the system of cropping adopted must necessarily be governed by the size of the garden and the amount of produce that is expected from it. For instance, where ample space is at command there will be no necessity to grow more than one kind of vegetable on a given plot at one time, and undoubtedly the best results follow where this is done, but in small or medium-sized gardens it is often necessary to double crop, and that closely. If the ground is well enriched by digging in plenty of manure, excellent and heavy crops are grown in this way, as is evidenced by hundreds of gardens, both private and market, throughout the country.

DIGGING AND TRENCHING.

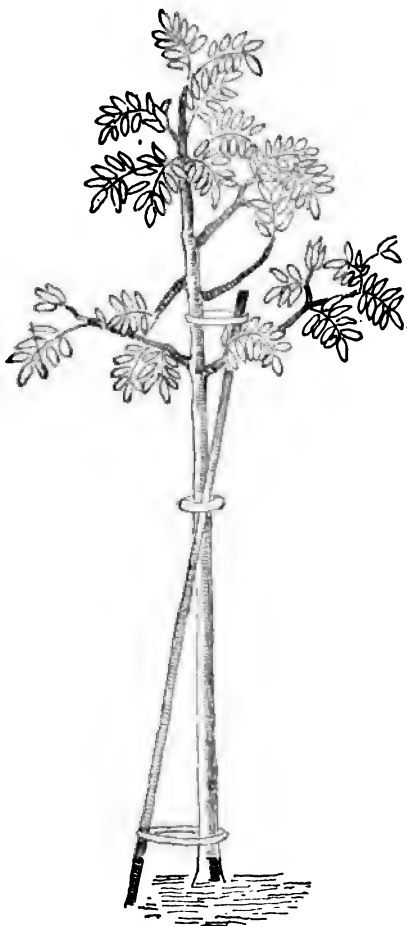
In gardens having light soils the sooner vacant plots are dug or trenched the better, that the ground may receive the action of frosts upon it for the purpose of destroying insects that are lurking therein and to sweeten it. Old gardens that have been heavily cropped and shallow-dug for a number of years will seldom produce high-class vegetables, but provided the subsoil is not of a clayey or gravelly nature, and that sufficient labour can be bestowed upon it, then it may be renovated and made most productive by periodical trenchings, or what is known as bastard-trenching. Where labour is not plentiful enough for this operation then it should be seen that the workman has a good spade, and that he digs as deeply as possible by keeping the tool nearly upright and pushing it well down to the haft. The digging or trenching of stiff retentive soils is best deferred for a couple of months if sufficient strength can then be had to deal with it. The rougher the surface can be left the better, for then frosts can penetrate the clods, and when seed sowing and planting time arrives it will be pulverised and more easily worked to a fine tilth. There are at least two kinds of vegetables always grown in quantity that may be called renewers of the soil for other crops, viz., Celery and Asparagus. The method of cultivating these necessitates deep digging and frequent moving of the soil, which prepares it for crops of different affinity, such as Onions, Carrots, Parsnips, Peas, and the Brassica tribe. Asparagus roots penetrate very deeply, and if a bed or more is lifted annually for forcing the vacant plot will answer admirably for any of the above deep-rooting subjects the following year if manured and deeply dug.

Stoneleigh Abbey Gardens.

H. T. MARTIN.

STAKING TREES.

STAKES, in many instances, are necessary evils, and where a tree will stand by itself a stake should never be used. Trees which have been properly prepared before leaving nursery quarters rarely require staking, except when planted in exposed situations, and even then stakes are only required for a year or so until the roots are firmly established in the new ground. In other cases, however, it is necessary to use stakes, and when this is so it should be so done that the tree will obtain the maximum amount of good from the stake with the minimum amount of harm. Young trees which have been badly or improperly staked are often permanently injured either by the ties becoming tight or by the stake rubbing the bark, and it should be the object of the gardener to avoid these things when staking a tree. After the staking is done it will be necessary to examine every stake once or twice a year, removing those no longer required and loosening the ties of others where the bark is in danger of being cut.



AN EXAMPLE OF CARELESS STAKING.

There are two general ways of staking. In one a single stake is used, and in the other three. Taking Figure I. first, a single stake should be inserted behind the tree at a short distance from the trunk, as shown in the illustration. When driving in the stake care must be taken not to drive it through any of the main roots. The presence of a root can readily be detected during the driving process. If the tree is leaning badly the stake may be driven to lean a little in the opposite direction, the strain of the tree will then pull the stake into an upright position. When tying, a band of felt or rubber should be passed round the tree, the string or wire being placed over this. By paying attention to this there is less danger of the bark being damaged.

Figure II. represents a stake carelessly driven in. In this case the stake crosses the trunk, and by the action of the wind on the head of the tree friction is sure to take place. This will eventually cause a bad wound in the bark. In no case should a stake cross a tree in this manner.

Figure III. shows a tree supported by three stakes placed in a triangle. This plan is sometimes adopted for newly-planted trees in very exposed situations, and when staked in this way it is almost impossible for a tree to have its roots disturbed. For this plan a good pad of felt should be placed between the stakes and the tree.

Another method of staking seldom met with is that used for the crooked leaders of old trees where the lower part of the trunk is straight. In this case the stake is secured with a couple of ties to the straight part of the trunk, after which the leader is strained up to it. In this case the ties have to be examined frequently, as they soon cut into the bark.

In the case of large trees which have a tendency to lean, or which have been blown over by the wind, a strong wire fastened to a stout peg driven in the ground is preferable to a stake. In such an

instance as this a good pad must be put between the wire and the tree. If the strain is very great it is advisable to pull the tree up with a rope previous to putting on the wire; if, however, the strain is not very great the driving of the peg with the wire attached will be sufficient to pull the tree upright. In every case where stakes are used great care must be taken that injury does not result, else, what is used for the good of the tree will, instead, do a great amount of harm.

W. DALLIMORE.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

PINE-APPLE CULTURE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I cannot agree with some of Mr. Eudale's remarks in his article on "Pine-apple Culture" in your issue of the 17th ult. I think there can be no doubt that Pine-apple growing in this country is a thing of the past, and small wonder if it takes so long to obtain ripe fruits as Mr. Eudale tells us. I would advise anyone who is thinking of growing Pines (unless they have ample convenience) to leave them alone. The Pine-apple is a plant which requires special treatment, and, unless this is given, it is likely to be very disappointing. To grow them successfully several houses must be devoted to their culture. It would be folly under the most favourable conditions for anyone to take up Pine-apple culture as a commercial enterprise, as really splendid fruits can be bought for a few shillings very little inferior to our English-grown ones. The most successful system of growing Pines here is by planting out. Four pits are devoted to them, each pit containing about 100 plants. Two are planted every year—one in March and the other in September. The bottom-heat is supplied by a hot-bed of Oak leaves about 5 feet deep. If the leaves are fresh a little of the old bed is mixed with them to prevent over-heating. Upon this is placed 1 foot of roughly chopped fibrous loam usually brought direct from the park. This is made firm by treading. When the bed has become sufficiently warm the suckers are planted about 2 feet apart. No water is given except by the syringe until the plants are rooting freely. They are shaded from bright sunshine for a few weeks until they begin to show signs of growth, after which shading is discontinued.

The Pine-apple is a plant which loves plenty of sunshine provided the house is judiciously aired. The varieties we grow are Smooth Cayenne, Charlotte Rothschild, and The Queen. It has often been said that Queen Pine-apples are not a success when planted out, but so well do they do here that we have decided to do away with pot culture altogether. It may surprise Mr. Eudale to know that we commence cutting ripe fruit within a year after planting, and in eighteen months the pit is usually cleared. The fruits average from 5lb. to 8lb., and sometimes 10lb. Judging from the illustration which accompanied Mr. Eudale's notes, the tops in some cases are very disproportionate to the size of the fruits. This can be remedied by destroying the growth in the centre when the top is thought to be large enough. This should be done very carefully and thoroughly, as if growth recommences the top is disfigured.

Frogmore.

E. HARRISS.

IRIS STYLOSA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This pretty Iris and its variety alba, coming into flower as they do at a time of year when flowers are scarce, are very useful. They are also valuable for cut flower purposes, especially to those who have not the means at hand for growing flowers except out of doors. With me the flowers of this Iris are just now commencing to open, and they will continue more or less for the next three months. The flowers are of a delicate pale blue,

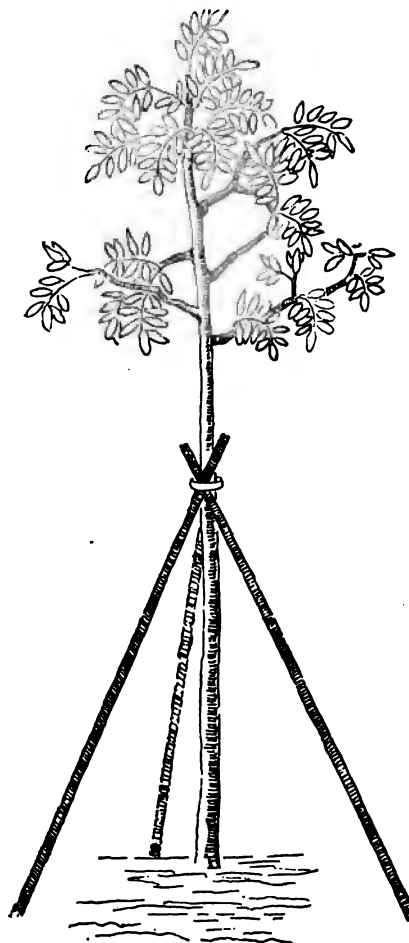
marked with yellow, and are of very pleasing appearance. Flowers of this description seen out of doors through the cheerless months of the year are not over plentiful, so that this and other plants which push their flowers at this period are valuable, and appear not to be too well known, or, at any rate, do not have the attention they so well deserve. With reference to *Iris stylosa*, I have met some, amateurs chiefly, who sometimes find it rather difficult to flower. Unlike some of the varieties of germanica and others, *stylosa* requires rather different treatment. An open sunny position, sheltered as far as possible from cold winds, suits it best, as, for instance, the foot of a wall facing south. With this, and a rather light, warm, dry soil, little difficulty need be experienced with its culture.

Sidbury.

R. BARTON.

BOOKS.

Journal of the Royal Horticultural Society.—No journal is more welcome than the quarterly parts which record the proceedings of the Royal Horticultural Society. The volume issued last week is the twenty-eighth, and comprises parts 1 and 2, and it is hardly necessary to mention that it is under the editorship of the Rev. W. Wilks, the secretary. The contents in this volume seem more interesting than usual, but this is, perhaps, because they appeal to the writer, especially the papers on "Little-known Trees and Shrubs," by George Nicholson, F.L.S., and "Recent Trees and Shrubs from China," by James H. Veitch. Dr. Cooke continues his excellent notes on "Fungoid Pests of the Garden," illustrated with coloured diagrams. This is a valuable series, and might be issued in pamphlet form with advantage. E. Emile Lemoine records experiments



TREE SUPPORTED BY THREE STAKES.

with "The Use of Ether and Chloroform for the Forcing of Shrubs, and of Lilacs in Particular." M. Lemoine's conclusions are as follows:—

"What conclusions can be drawn from all these experiments? It appears quite legitimate to assume that the vapour of ether has a great influence on the rapidity and ease of forcing shrubs; but this influence is only of real importance for early forcing, that is to say, before Christmas, because after that date the shrubs cultivated for this purpose can generally be forced very easily without the use of anaesthetics. On the other hand, for the forcer to obtain the full advantage of etherisation he ought to have a large chamber constructed and make it absolutely airtight, because not only would the least leakage tend to counteract the influence of the ether, but might give rise to fires or explosions. Moreover, as I have said already, the manipulations must all be made in the daytime, because to go near the ether chamber with a lamp or a cigar is sufficient to cause a frightful explosion. This danger is a very real one, and I am certain it will dissuade not a few from using this new method of forcing."

"Chloroform does not present the same dangers, but its success has not yet been proved in so definite a manner. From the results obtained it appears that chloroform ought to be employed in much smaller quantities than ether—a third or fourth part, for instance—for I understand that M. Leblanc, by employing about 20 grammes of chloroform for 100 litres of air, did not obtain any particular results with Lilacs, and that M. Aymard, by using the same quantity of chloroform as of ether, nearly lost all his Lilacs, although the Lilacs of the Valley, treated in the same way, were a wonderful success. One can perfectly understand that the buds of Lilacs of the Valley, like the bulbs of Hyacinths, Tulips, &c., being enveloped in a great thickness of tissues, require a larger quantity of the vapour of ether or chloroform to penetrate to them than the buds of Lilac or Azalea, which are protected by quite thin scales."

The Rev. Professor Henslow, M.H., V.M.H., is concerned with "Darwinism and Evolution," and a most interesting paper is that by Mr. James Hudson, V.M.H., upon the "Blue Nymphæas," which we hope shortly to reproduce. The other papers are "Horticultural Education in Greater Britain," by Mr. R. W. Wallace; "On Bottling Fruit," which is a most instructive contribution by Edith Bradley; "Conifers in the lower Thames Valley," by Mr. A. Worsley; "The Future Development of Show Tulips," by Mr. J. W. Bentley, whose knowledge of the Tulip is considerable; "Horticulture in New Zealand," by Mr. G. Hunt, a carefully considered paper by one who has lived the best part of his life in New Zealand, and returned a month ago after a lengthy visit to his native home; "The Root Growth of Daffodils," with illustrations, a most interesting paper, by Mr. W. Bartholomew, and reports of many trials at Chiswick, besides the usual features. A portrait is given of the late Mr. Barron, and the following words from the "In Memoriam" notice of that great gardener will be echoed by all who enjoyed his personal acquaintance: "His career, so honourable and brilliant, should serve as an incentive to all young gardeners to practise diligence and observation and all-roundness in their calling."

The secretary makes a strong appeal for funds for the new Hall and garden, but we have referred to this elsewhere.

SOCIETIES.

ASCOT HORTICULTURAL SHOW.

THE annual exhibition of the Ascot, Sunninghill, Sunningdale, and District Horticultural Society, held at the Grand Stand, Ascot, on the 4th and 5th inst., was an unparalleled success from every point of view. The weather on Wednesday and Thursday was propitious in the highest degree. To refer to any length to the competitive horticultural exhibits would be to repeat to a great extent information that is necessarily contained in the prize list below. Special mention might, however, be made of the contribution of floral exhibits from the gardens of King's Ride, and it must be a source of satisfaction to Sir Edwin and Lady Durning-Lawrence—who take such an interest in the Society's doings—to

know that the judges viewed their entries with so much favour as to grant the many prizes awarded to them. The Dowager Lady Lucas and the Dowager Marchioness of Conyngham also came out very well in the list of results, while Mr. Beckett, M.P., and Sir Charles Russell, Bart., two new exhibitors, met with an encouraging amount of success in their first attempts at the Ascot show. Only two non-competitive displays were made, Messrs. Standish, of the Ascot Nurseries, showing a well-selected collection, and Mr. Cooper, of Sunninghill, a selection from his large stock of Palms, &c., to which were added some fine specimens of his Gros Colmar Grapes.

Of the secretaries, Mr. Edward Blair and Mr. Attfield, many eulogistic remarks could be justly made, for the work consequent upon the exhibition is immense.

OPEN CLASSES.

Best twenty-four Japanese blooms, distinct varieties: First, Mr. C. T. D. Crews (gardener, Mr. F. Ashman); second, Mrs. Christie (gardener, Mr. Wilson); third, Sir Edwin Durning-Lawrence, Bart., M.P. (gardener, Mr. Lane).

Best twenty-four incurved blooms, distinct varieties: First, Mrs. Christie; second, Miss A. S. Ridge (gardener, Mr. Lane); third, Sir Charles Russell, Bart.

For the best group of Chrysanthemums, mixed with foliage plants and Ferns: First, Dowager Lady Lucas (gardener, Mr. Grant); second, Sir Edwin Durning-Lawrence, Bart., M.P.

OPEN TO THE DISTRICT ONLY.

For the best collection of Chrysanthemums in pots, to be shown as grown: First, Sir Edwin Durning-Lawrence, Bart., M.P.; second, Dowager Marchioness Conyngham (gardener, Mr. White).

For the best collection of non-disbudded Chrysanthemums in pots: First, Dowager Lady Lucas; second, Dowager Marchioness Conyngham.

Six large-flowering Chrysanthemums in pots, distinct varieties, bush grown, but not formally trained: First prize and a silver-gilt medal presented by Mr. H. J. Jones of Lewisham, Miss Thatcher (gardener, Mr. Neate); second, Mr. F. B. Rendle (gardener, Mr. Pearce).

For the best group of miscellaneous plants in pots, arranged for effect: First, Sir Edwin Durning-Lawrence, Bart., M.P.; second, Dowager Lady Lucas; third, Dowager Marchioness Conyngham.

CUT BLOOMS.

For the best eighteen incurved and eighteen Japanese distinct varieties: First prize and a silver cup presented by Mr. Walter Palmer, M.P., Mrs. Christie; second, Mr. E. W. Beckett, M.P. (gardener, Mr. Baskett).

Twelve Japanese varieties, distinct (open to single-handed gardeners with one assistant): First, Mr. F. B. Rendle; second, Miss Thatcher.

Six incurved varieties, distinct: First, Marquis of Downshire (gardener, Mr. Simms); second, Sir Charles Russell, Bart.; third, Miss A. S. Ridge.

Twelve Japanese varieties, distinct: First, Mr. A. F. Walter (gardener, Mr. Barnes); second, Mr. C. T. D. Crews; third, Sir Edwin Durning-Lawrence, Bart., M.P.

Six Japanese varieties, distinct: First, Mr. A. F. Walter; second, Miss A. S. Ridge; third, Sir Charles Russell, Bart.

Six vases, three blooms in the vase: First, Mrs. Christie; second, Marquis of Downshire; third, Dowager Marchioness Conyngham.

FRUIT.

Two bunches of black Grapes: First, Sir Charles Russell, Bart.; second, Marquis of Downshire; third, Miss A. S. Ridge.

Two bunches of white Grapes: First, Sir Charles Russell, Bart.; second, Sir Edwin Durning-Lawrence, Bart., M.P.; third, Mr. F. B. Rendle.

ALEXANDRA PALACE.

THE nineteenth annual exhibition of the Highgate and District Chrysanthemum Society took place recently in the large and well-adapted central hall of the Alexandra Palace. This was the second occasion on which the show had taken place in this well-known North London resort, and the display was an excellent one. Cut blooms and decorative exhibits were the chief features of the display, and these were ably supplemented by capital groups.

The chief class was one for twelve vases of Japanese Chrysanthemum blooms, distinct, five blooms of one variety in each vase. The first prize was a silver cup value five guineas and the sum of five guineas in addition, and this was won with a superb lot of well-finished blooms by Mr. W. Ring, gardener to Mr. J. Warren, Capel House, Waltham Cross. The blooms were heavy and well disposed in the vases, his best sorts being F. S. Vallis, Mme. Carnot, Australia, Mme. L. Remy, Mafeking Hero, M. Chénon de Leche, Mermaid, Marquis Venosta, Mr. T. W. Pickett, and Lord Salisbury. A creditable second was Mr. G. J. Hunt, gardener to Mr. Pantia Ralli, Ashted Park, Epsom; and Mr. J. Sandford, gardener to Mr. C. W. Wright-Ingles, Wood House, North Finchley, was third with a fresh and clean exhibit.

The premier class in the incurved section was for six vases of incurved blooms, distinct, five blooms of one variety in each vase. In this instance Mr. Sandford led with heavy, well-developed flowers. Second honours were secured by Mr. A. Jones, gardener to Miss Wyburn, Hadley Manor, Barnet, who had very large blooms, but less even than desired, and lacking the finish generally expected. His Chas. H. Curtis and Lady Isabel were very fine, however.

For six vases of five blooms each, distinct, of Japanese varieties, open to those living within two miles of Highgate Church, the first prize was won by Mr. T. L. Turk, gardener to Mr. T. Boney, Southwood House, Highgate, who had fresh and even blooms, neatly arranged.

In the open class for a vase of six Japanese blooms, distinct, there were six competitors, Mr. G. Frost, gardener to Mr. R. Ware, East Hill, Oakleigh Park, leading with fresh flowers of good colour. The second prize went to Mr. J. Kirkwood, Grass Park House, Finchley, N.

Very charming indeed were the Pompons set up in huge vases for decorative effect. There were five exhibits, Mr. T. L. Turk again leading with a large and handsome decoration. Unpleasantly close for second prize came Mr. E. H. Chitty, gardener to Mr. B. Hardy, Cholmeley Lodge, Highgate.

Five entrants for twenty-four Japanese blooms, in not less than eighteen varieties, were forthcoming in the class restricted to the new Borough of Hornsey, for which a silver cup was offered by the president. In this contest Mr. Turk was again to the fore. The second prize was won by Mr. A. North, gardener to Mr. F. Snowden, Broughton Lodge.

In the open class for twenty-four Japanese, in not less than eighteen varieties, there were four entries. First prize was well merited by Mr. W. J. Bennett, gardener to Mr. J. B. Braithwaite, The Highlands, New Barnet. They were a first-class lot, conspicuous examples being Mrs. Barklay, Sensation, M. Chénon de Leche, Lord Ludlow, Miss Elsie Fulton, Florence Molyneux, Mrs. J. J. Thornycroft, and Miss Edith Pilkington. A good second was Mr. J. Brooks, gardener to Mr. W. J. Newman, Totteridge Park, Herts.

A unique class was that for twelve yellow Japanese blooms in one or more varieties. Of the four exhibitors Mr. A. Jones was placed first with an effective stand. Mr. J. Brooks closely followed for second prize.

In the open class for twelve blooms, distinct, Mr. Kirkwood was placed first with a good even lot of flowers of good quality, and Mr. C. Gray, gardener to Mr. W. Menzies, Hornsey Lane, was awarded second prize.

There were five entries in the class for six white Japanese blooms, distinct, Mr. A. Jones being in the premier position with a clean and attractive exhibit showing popular sorts; second prize was won by Mr. Bennett, who was very close up.

For six Japanese blooms of one variety Mr. Sandford was well to the fore with even blooms of good colour of Mr. George Mileham; second, Mr. Kirkwood, with the same variety.

Six boards were shown in the class for six blooms Japanese, distinct, Mr. A. Jones again leading with a magnificent set; Mr. Sandford was a good second.

For six blooms of any one variety of incurved splendid examples of Chas. H. Curtis secured leading honours for Mr. Sandford, Mr. Kirkwood following with the same variety for second prize.

Pompons are always well shown here, and the present display was even better than usual. In the open class for three blooms each of twelve varieties, distinct, the invincible Mr. T. L. Turk secured premier honours with a bright and even set, free from coarseness, and of good colour. Mr. Chitty was a very creditable second.

In a similar class from which big growers were excluded Mr. Turk was again placed first, followed by Mr. W. Aldridge, gardener to Mr. G. Lacey, Palmer's Green, Southgate.

There were many other classes in which Japanese, incurved, Anemones, and Pompons made a magnificent show.

The decorative exhibits were a pleasing feature. For a floral decoration suitable for a dinner-table, open to lady members, Mrs. D. B. Crane, 4, Woodview Terrace, Highgate, was first with an exquisite table, having yellow and orange-coloured flowers with appropriate foliage. Second prize was won by Miss Bella Saunders, Archway Road, Highgate.

For three perennials, Mr. G. Shrimpton, gardener to Mr. D. F. Cocks, Hornsey Lane, was first, and Mr. D. B. Crane, Highgate, second.

MISCELLANEOUS EXHIBITS

were very interesting. From Messrs. H. Cannell and Son, Swanley, came a huge bank of zonal Pelargoniums, and these, together with exhibition and decorative Chrysanthemums, made a grand exhibit.

Messrs. B. S. Williams and Son, Upper Holloway, also had a beautiful group of Ericas, Begonias, Salvia, Crotons, Dracenas, and other choice plants.

From Mr. G. Saunders, Highgate, came cut Chrysanthemums and artistic floral work.

Messrs. W. Wells, Limited, Earlswood, showed a small collection of Chrysanthemums which represented many fine varieties.

From Messrs. H. Williams and Sons a collection of Primulas, and from Mr. H. Lovegrove, gardener to Mr. E. Spicer, Aberdeen Park, Highbury, a beautiful group of Cypripedium spiciferum and Ferns.

The Ichthemio Guano Compound was also shown.

To Mr. W. E. Boyce, the secretary and show superintendent, too much praise cannot well be given for the excellence of the arrangements. This show is quickly attaining national proportions.

WOOLTON GARDENERS' SOCIETY.

A WELL-ATTENDED meeting of the above was held at the Mechanics' Institute on the 5th inst., the Rev. William Mellor in the chair. In addition to the members a large contingent of teachers were present to hear Mr. R. Wilson Ker, F.R.H.S., F.S.A., deliver his lecture on "Hardy-flowering Trees and Shrubs." As an introduction the lecturer referred to the great work that our collectors and hybridisers had done in providing and improving the varied and beautiful plants that brighten our gardens, parks, and landscape. A brief outline of culture was given and a stronger plea for pruning, which must be followed in a practical and judicious manner. The system of any shortening by shears was strongly objected to. A note of appreciation was paid the intrepid collectors, who had done much for increasing the value of our fruits and the beauty of our flowering plants, and for the large tracts, especially in Japan and China, yet to be explored. This led up to the valuable work of the hybridist, many of the specialists being introduced by the lecturer through his visits to the men and their work. The views numbered over eighty, a portion being kindly lent for the occasion by Mr. G. Gordon, editor of the *Gardener's Magazine*. In many cases the full grown plant was shown on the screen, followed by a flowering shoot.

Mr. R. Todd moved a cordial vote of thanks to the lecturer, in which he stated that it afforded the members great pleasure and profit to receive Mr. Ker, who from time

to time gave them excellent lectures from personal knowledge of his subject. This was seconded by Mr. T. Carling, and carried with applause.

Mr. Ker, in replying, referred to the pleasure that it afforded him in coming among his Woolton friends, who had and were carrying on the work of the foremost society in the neighbourhood of Liverpool, who provided for their members an excellent botanical and horticultural library and a valuable microscope, which should be highly prized by the members, and he trusted with those provisions the valuable work would long continue.

On the motion of Mr. Ker, seconded by Mr. J. Stoney, a cordial acknowledgment of the services of the reverend chairman was accorded.

THE HORTICULTURAL CLUB.

On Tuesday, the 10th inst., the usual monthly dinner of this club took place under the presidency of Mr. Harry J. Veltch, and was well attended, a paper having been announced on "Vegetable Curiosities," by Mr. G. S. Saunders, F.L.S., as the special attraction on this occasion. The branch of this extensive theme with which the lecturer specially dealt was that of malformations in flowers and fruit rather than the more general one of "sports" proper, and the paper was rendered the more interesting by the exhibition of a large number of beautifully-executed drawings of specimens which had come under Mr. Saunders' personal notice. A considerable number of these represented curious divergences from the normal structure of Cypripedium flowers, which appear peculiarly prone to their production, the various parts of the flower appearing abnormally changed in form or even duplicated or reversed, although in the large majority of cases the modifications can be traced as mere change of form of normal parts and rarely as actual additions. In these cases of simple malformation, as in most of the others described and exhibited, such as double fruits, foliaceous flowers and fasciation, the peculiarity was almost invariably confined to the individual plant, or even the individual flower, and although recurrent cases were cited, they seemed, as a rule, incapable of reproduction through the seed. It was also pointed out that similar eccentricity was much rarer in leaves than in flowers, due presumably to the higher specialisation of the parts of the latter, many abnormal forms of which were obviously due to more or less reversion to the primary leaf type.

The cause of such aberration appears to be entirely a mystery, as it is with sports proper. In the subsequent discussion, in which the Rev. G. Henslow, Mr. Harry Veltch, Mr. James Walker, Mr. Drury, Mr. Chas. Pearson, and Dr. Cooke took part, Mr. Henslow cited a number of abnormalities on similar lines to those mentioned by the lecturer, and gave some explanations regarding the particular modifications of the floral organs, &c., involved. Double flowers were also alluded to, very opposite opinions being expressed as to the reason why they appeared, starvation being adduced as one reason, while Mr. Harry Veltch cited the very opposite though opposite case of double Rhododendrons raised by his firm by fertilisation from apparently accidental petaloid stamens where the highest culture prevailed throughout. Mr. Walker mentioned several cases, and said he could cite many more of Narcissus sports or reversions occurring in his cultures, which he felt inclined to refer to sudden change of treatment. Mr. Drury referred to the innumerable curiosities which had originated among Ferns in which modifications of the leaf equivalents or fronds were singularly marked as well as numerous. He also pointed out the strong resemblance and yet essential difference between fasciation and the creting to which most Fern species seemed subject, though among flowering plants no definite instance could be cited. Finally, he strongly deprecated the classing of symmetrical sports, capable of true reproduction through spore or seed, with what had been previously described as Barnum-like "freaks," which he maintained belonged, like the malformations cited by the lecturer, to a different category altogether. A hearty vote of thanks to the lecturer concluded the proceedings.

SIDCUP.

THIS is a comparatively young society, but since its start it has continued to make headway and is in a flourishing condition, being well supported in the neighbourhood. The Chrysanthemum show is not a large one, but there are many very good exhibits, and some of the blooms would compare favourably with any seen at our largest shows. Among specially fine blooms were The Princess, adjudged the premier bloom in the show; the Rev. W. Wilks, very fine pink; G. Lawrence, Mme. Paolo Radaielli, W. R. Church, Mrs. Greenfield, Mrs. H. Emmerton, Vicar of Leatherhead, Lord Salisbury, and Mme. Carnot (some immense blooms). The incurved C. H. Curtis was well shown, the six blooms taking first prize in class 24 being some of the finest we have seen this season. Messrs. Gregory and Evans had a fine bank of Heaths, Ferns, and foliage plants, also some grand floral arrangements in Chrysanthemums, and a table prettily decorated with pink Roses and pink Bouvardias.

The table decorations for competition were not remarkable, though fairly creditable for amateurs. Mrs. Bee, first; Mrs. Martin second, and Miss Doran W. Cox third.

In the class for a group of plants (Chrysanthemums) the exhibits were very good, but they were arranged in the usual formal semi-circle, though the schedule specified any foliage might be used, and artistic arrangement was to be the chief feature. First, Mr. G. Russell, gardener to K. E. Landshyer, Esq.; second, Mr. S. Norgate.

For a group of Chrysanthemums (space 8 feet by 5 feet) the first prize went to Mr. T. King, gardener to W. Harborough, Esq.; second to Mr. J. Dennis, gardener to J. Horsfield, Esq.

For four vases, three blooms in each, some good exhibits; first, Mr. T. King; second, Mr. E. Horsley; third, Mr. J. Dennis.

For twelve Japanese, distinct: First, Mr. T. King; second, Mr. G. Beatrip.

For six Japanese, one variety: First, Mr. King; second, Mr. Beatrip.

Mr. King, Mr. Dennis, and Mr. Beatrip were the chief winners in the other classes.

For a collection of dessert fruit there was only one exhibitor, Mr. Willman, who had some very good dishes.

For a collection of vegetables there was a strong competition, the prizes went to Mr. S. Norgate first, Mr. W. Willman second, Mr. E. Horsley third, and Mr. G. Russell fourth.

The challenge cup offered by Messrs. Gregory and Evans went to Mr. T. King, and the silver-gilt medal for best bloom in the show to Mr. S. Norgate.

LIVERPOOL HORTICULTURAL ASSOCIATION.

THE initial gathering of the above for the winter season was held on the 7th inst. at the society's office, Mr. T. Foster presiding over a good attendance of members. The committee were fortunate in securing the co-operation of Mr. E. F. Hazelton of Knowsley, who gave the opening paper, the subject selected being "The Culture of Pot Roses." Details were given in a lucid and practical form thoroughly well suited to the audience. The most approved stocks and the form of production were briefly given, with the recommendation that plants for pot work should be started from the first. After suitable plants had been secured pruning should be done in November, if means were at command where they could be stored so that frost might be kept out. Early pruning was advisable so that the buds could be well built up. Teas were recommended for early work, to be followed later by selected varieties of Hybrid Perpetuals. Houses, compost, and feeding were carefully given, the pots to be of medium size, according to the plant, the compost to be made firm, the pruning to be moderately hard excepting the Teas, which should have the thin wood removed and the other shortened back, with some consideration as to the form of the plant.

A good discussion followed, in which Messrs. H. Ranger, Joseph Stoney, R. G. Waterman, R. W. Ker, S. Haines, B. Ashton, and others took part. On the motion of Mr. R. G. Waterman, seconded by Mr. H. Ranger, a cordial vote of thanks was tendered to Mr. Hazelton for his excellent paper and for his kindness in identifying himself with the work of the association so quickly after his settlement in the neighbourhood. A similar compliment on the motion of Mr. Ker was paid to the chairman for his services.

COLCHESTER.

SPLENDID FRUIT SHOW.

THIS autumn exhibition, held in connexion with the Rose Society, was held on the 5th inst. in the Corn Exchange, adjoining the new Town Hall, a splendid building for the function, and it was a great success from every point of view. Our notice more concerns horticulture, and here were to be seen some of the finest fruits this season has produced; indeed, the hardy fruit in many classes was superior to that of the Chiswick show. Pears and Apples were exhibited in quantity. At the Colchester show a great feature is made of the Pears and Apples; the classes for Blenheim, Ribston, and Allington Pippins, and such like were very fine. The Rev. Dr. Bartrum takes a great interest in this part of the show, offering good prizes for fruit, but special attention must be paid to the naming. This gentleman is also one of the leading exhibitors in the hardy fruit section.

Grapes were excellent, and the best black sorts came from the Hon. W. Lowther (gardener, Mr. Andrews); second, Messrs. Gail and Moy.

Messrs. Osborne and the Hon. W. Lowther had the best white, and the Rev. Dr. Bartrum the best collection of dessert Apples, Mr. O. G. Orpen being a close second.

For smaller collections, Mr. R. W. Wallace was an easy first, Messrs. Chapman and Lowther second and third. Mr. Wallace had grand Allington Pippin, being an easy first; Dr. Bartrum the best Cox's Orange and Ribstons, and the best Spice Apple, a class well done here. There were six successful exhibitors, the fruits being divided into green and coloured. Mr. O. G. Orpen had a splendid lot of culinary Apples, being an easy first with six dishes, Rev. Dr. Bartrum second.

For dessert Pears, six varieties, the Rev. Dr. Bartrum was first, and Mr. H. G. Egerton-Green second. For three dishes Mr. N. B. Page was the winner. For nine varieties of Apples, distinct, Mr. Orpen again led, having splendid fruits of kitchen varieties. For cooking Pears some grand fruits were staged by the Rev. Dr. Bartrum. For the best dish of dessert Apples staged Mr. R. W. Wallace was the winner with grand Allington Pippin. There was a large number of single dish classes, the fruits taking up quite half the space, so it will be seen that Colchester is getting a great fruit centre.

CHRYSANTHEMUMS

were also a splendid feature, the cut bloom classes being above the average, and there was an excellent competition in all the classes. Mr. W. E. Eyre took the National Chrysanthemum Society's silver medal for the best bloom, having grand F. S. Vallis. Sir Mount Stuart Grant Duff obtained a similar distinction for the best twelve blooms of incurved with C. H. Curtis. For the best twenty-four blooms (open) Messrs. Rogers-Green and Mason had the best stands in the order named. For twelve blooms Mr. Eyre, Sir M. Grant Duff, and Mr. Paxman won as named. For incurved blooms Mr. Paxman, Mrs. Gray, and Mr. Egerton-Green had splendid flowers. For vases Messrs. Paxman, Moy, and Cooke had very beautiful flowers. The groups staged were remarkable for their good flowers and freshness, but the committee will do well to vary the schedule. There is too much bloom and not enough foliage.

Groups arranged for effect would be superior to mere grouping of huge blooms in a formal manner, as is now done. Mr. Kettle, gardener to Mr. H. G. Egerton-Green, was first, having grand flowers at the back of the group; General Larpent (gardener, Mr. J. Clayden) was a very close second, the only defect being a poorly furnished front, but he had

splendid quality; Sir G. Duff (gardener, Mr. Oliver), an excellent third. The last named exhibitor was first for six plants, Japanese, distinct; second, Mr. W. Draper. For incurved varieties Mr. Egerton-Green was first; second, Sir G. Duff. For Pompons General Larpent led, followed by Messrs. Inglis and Mason.

TABLE DECORATIONS

were a feature and most tastefully done, Miss G. Sanders being first, using Orchids freely; this we thought a little heavy. Mrs. O. G. Orpen was second with a beautiful arrangement of Tea Rose buds and large Violets, Miss V. Bruce being third. For baskets of Chrysanthemums Miss M. Cant was a good first, Miss Harwood second, and Miss Sanders third.

VEGETABLES

were a leading feature. There were several splendid collections, the leading prizes going to Messrs. Egerton-Green, Deacon, and the Right Hon. J. Round. There was a large number of single dish classes, and the amateurs' and cottagers' classes filled a large space, such vegetables as Potatoes and Onions being specially fine.

The hon. secretary and his committee deserve much commendation for making this show what it is—the leading one in East Anglia for fruit and vegetables.

LEEK SHOW AND COMPETITION AT KELSO.

It is not only as flower growers that our enterprising local firm of nurserymen and seedsmen, Messrs. Laing and Mather (Incorporated with Stuart and Mein), have achieved a wide and high reputation, but they have also attained to considerable fame as the vendors of high-class field and garden seeds, the excellent quality and reliability of which have been amply demonstrated in the series of root and Leek shows which they have held from time to time. The firm's annual open Lyon Leek competition, which took place within their premises here on Friday last, was again an unqualified success. There were nine prizes offered, and the conditions were that each exhibit should comprise three Leeks, grown from seed purchased from the firm. As showing the widespread interest taken in the competition, it may be mentioned that exhibits were sent in from all parts of the country, even from as far south as Devonshire and Cornwall. In all there were thirty-six lots shown, and they made a very attractive display, the quality and size of most of the exhibits testifying to the superiority of the Lyon variety. The first prize lot, shown by Mr. Hood, Dryburgh, contained three remarkably good and evenly-grown Leeks, the blanched portions of which were nearly 18 inches in length, being at the same time close and fine in texture. The second prize lot, belonging to Mr. A. J. Harrison, Lauder, although not so evenly drawn as the first, were also very fine, and one of the three, which had fully 18 inches of blanch, attracted considerable attention. In the Ellington Park lot, which gained fourth prize, there was one monster Leek, remarkable for its girth and generally good proportions. A very pretty exhibit was that of Mr. J. M. Burckett, Dunfermline, consisting of three small but beautifully-grown Leeks, and which were specially commended by the judges. Friday being market day in the town, a large number of farmers and others interested visited the show. The following were the prize winners: First, R. Hood, Dryburgh, St. Boswells; second, A. J. Harrison, Lauder; third, W. Moore, Nunwick Gardens; fourth, John Wightman, Ellington Park Gardens, Northumberland; fifth, W. Hodgson, Prudhoe; sixth, James Steel, Kelso; seventh, Thomas Fairbairn, Benrig Gardens, St. Boswells; eighth, Thomas Watson, Cannongate, Alnwick; ninth, R. T. Rae, Sunlaw, Kelso; specially commended for quality, J. M. Burckett, Dunfermline. The judges were Messrs. Charles Street, Floors Castle Gardens, and William Chaplin, Springwood Park Gardens.

DULWICH.

BEAUTIFUL DISPLAY OF GROUPS.

THE president and officers of this society are to be congratulated on the splendid success of this their tenth exhibition, which was in every way worthy of the highest praise. The groups of pot plants were a special feature, there being no less than twenty-five groups, all of great merit. The six entries for class 36, which was for amateurs who had not previously taken a first prize, was, naturally, weak, but otherwise it would be difficult to imagine a better display, especially as they are chiefly confined to growers within a three miles radius of the show room. The class for six bush plants brought four competitors, and though not quite up to specimen standard there were some very good plants. The cut bloom classes were also well contested, the vase classes being especially good, and it is interesting to note how much more these are appreciated by visitors than are the classes where blooms are shown on boards. The classes for baskets and epergues were also a good feature, some beautiful combinations of coloured foliage and flowers being well set up. In the non-competitive exhibits the large group of plants from Mr. E. Forster, Nunhead Cemetery, was very attractive. It consisted mostly of large flowered varieties, but there were some pretty examples of the Pompons, Hairy Wonder (with three fine blooms on each plant), Duke of Wellington, Lady Hanham, and others. A silver-gilt medal was awarded to this group.

Messrs. Peed and Sons were also awarded a silver-gilt medal for a mixed collection of plants, which included Chrysanthemums, Orchids, Begonias, and some good foliage plants. Mr. H. W. Davey had a very attractive display of plants and floral arrangements. A harp made of golden-yellow Chrysanthemums and a large cross of Source d'Or with a few stand-up flowers were well arranged.

In the cut flower classes S. F. Vallis was voted the finest Japanese bloom in the show, and received the premier award (gardener's section); C. H. Curtis (incurved) the finest bloom in amateur classes, and Mrs. J. Bryant the premier bloom in novices' class. The Championship Challenge Shield offered by Messrs. Toogood for the exhibitor gaining the largest number of points was won by Mr. A. M. Falkner

with twenty-nine points; the second in order was Mr. T. Martin with nineteen points, and Mr. A. Winter third with fifteen points. Taking the classes, in Class I. (twenty-four blooms, sixteen Japanese and eight incurved) Mr. A. Winter was first with grand blooms, Mr. F. Jordan, Lady Isabel, and C. H. Curtis (Japanese), and Godfrey's Pride, General Hutton, Elsie Fulton, and Miss E. Fitzroy (Japanese) were among the best; second, Mr. J. Perks; third, Mr. Taylor.

Group in space 10 feet by 7 feet for gardeners, four entries, all good groups: First, Mr. A. Winter; second, Mr. E. Houlton; third, Mr. E. Rea.

Six bush plants: First, Mr. W. Webster; second, Mr. T. Martin; third, Mr. Rea.

Twelve Japanese blooms, four varieties, in vases: First, Mr. T. Martin, with fine blooms of Mrs. Barkley, Vicar of Leatherhead, Mme. Carnot, and T. Carrington; second, Mr. Bellis. S. F. Vallis (including the premier bloom) and Elsie Fulton good in this exhibit; third, Mr. W. Taylor, with fine blooms of The Princess and Le Grand Dragon.

Twelve Japanese blooms, distinct: First, Mr. Bellis, with fine blooms, including S. F. Vallis, G. Penford, M. Rousseau, Beesie Godfrey, and Duchess of Sutherland; second, Mr. Winter; third, Mr. Taylor.

Six Japanese cut blooms: First, Mr. Martin; second, Mr. Houlton. In this class Sir H. Kitchener, Mrs. J. C. Neville, and Beesie Godfrey were good.

Five blooms, one variety, in vase, six entries. This was a fine class: First, Mr. Martin, with Mrs. Barkley; second, Mr. W. A. Hurst, with Nellie Pickett; third, Mr. Bellis.

Six blooms incurved, three entries: First, Mr. W. Taylor. In this Hanwell Glory, Mrs. C. Crook, Lady Isabel, and Duchess of Fife were good; second, Mr. A. Winter; third, Mr. Houlton.

Five blooms incurved in vase, six entries: First, Mr. Hurst; second, Mr. Martin; third, Mr. T. Collins. All three prizes went to fine blooms of C. H. Curtis.

Six bunches Anemone, Pompons, and singles. In this class were some very pretty varieties: First, Mr. Duncan; second, Mr. J. Sibley; third, Mr. Rea.

Vase of seven blooms. In this class there were fine blooms, well shown: First, Mr. Bellis; second, Mr. Winter; third, Mr. Martin.

One Japanese, one incurved, in vases with foliage (six entries): First, Mr. Hurst, with Mrs. H. Weeks and C. H. Curtis; second, Mr. Martin; third, Mr. Taylor.

Basket of Chrysanthemums and foliage: First, Mr. Taylor; second, Mr. Falkner; third, Mr. Bellis. The above classes were all open to nurserymen and gardeners within the three miles radius.

In the classes for lady members the epergnes were very good. First, Mrs. Taylor; second, Mrs. Madge; third, Mrs. Wolfe. In the baskets Mrs. Taylor and Mrs. Madge were again first and second respectively, and Mrs. M. A. Falkner third.

In many of the amateur classes the exhibits were of exceptional merit, the groups especially in these classes. The principal prize winners were Mr. A. M. Falkner, Mr. T. Bradbury, Mr. E. J. Stramears, Mr. E. W. Allen, Mr. J. Tavenor, Mr. G. Richardson, and Mr. W. Parker. In the three classes for amateurs who had not previously taken a first prize Mr. H. J. Williams came first in each class.

Most of the cut bloom classes for amateurs were well contested, but for the challenge cup there was only one competitor—Mr. C. W. A. Banks, who deservedly took it with good blooms. The secretary (Mr. C. A. Young) and the committee deserve a great financial success.

SHEFFIELD CHRYSANTHEMUM SHOW.

THE Sheffield Chrysanthemum Society well maintains its high position, the exhibition held in the well-known Cutlers' Hall being of a very high degree of excellence. In addition to the great hall, so closely identified with the industry of the city, the old Cutlers' Hall and another hall adjoining were requisitioned for the display. The late Mr. William Housley, who acted as secretary for so many years, was sadly missed, but Mr. M. H. Willford, assisted by an energetic committee, worked so well and so loyally that everything passed off splendidly. The show took place on the 13th and 14th inst., and may be said to have represented the Chrysanthemum at its best.

CUT BLOOMS.

Incurved Chrysanthemums were never seen in better form and finer condition, the five entries in the open class for twenty-four blooms in not less than eighteen varieties making a display second to none this season. Mr. W. Higgs, gardener to Mr. J. B. Hankey, Fetcham Park, Leatherhead, occupying the premier position with a superb set. Specially handsome were Duchess of Fife, Charles Blick (phenomenal), W. Higgs, Lady Isabel, C. H. Curtis, May Phillips, Mildred Lyne, Hanwell Glory, Mrs. F. Judson, Ma Perfection, Mme. Ferlat, Mrs. A. Dighton, and George Lock. Mr. G. W. Drake, Cardiff, was second with a very heavy and even lot of globular flowers; third, Mr. A. Alderman, gardener to Mr. J. D. Ellis, J.P.; fourth, Mr. C. Crooks, gardener to the Dowager Lady Hindlip, Droitwich, with large though less globular blooms.

For twelve incurved blooms, distinct, Mr. Higgs was again first with a splendid stand, Duchess of Fife, C. Blick, W. Higgs, and Frank Hammond being noteworthy specimens; Mr. Crooks was second with blooms of good size though lacking finish.

For six incurved blooms, distinct, Mr. Crooks was placed first of the two entrants, followed by Mr. J. Harrison with smaller and less even flowers.

Japanese blooms were superbly shown in the open classes, the premier class being one for twenty-four blooms in not less than sixteen varieties. Of the five competitors Mr. F. S. Vallis, Brimham Fruit Farm, Chippenham, led the van with a grand and heavy lot of blooms of good colour, capital form, and beautifully fresh. Remarkably handsome were the flowers of Mrs. F. S. Vallis (grand), Mrs. J. Lewis, Valerie Greenham, F. S. Vallis, Sensation, W. E. Church, Beesie Godfrey (lovely), J. H. Sisbury, Mrs. Whereat,

Calvat's '99, Mme. Herrewere, and Mme. Paolo Radaelli. Mr. Higgs followed closely with a heavy lot of blooms, but less fresh and of poorer colour than those in the leading stand; third, Mr. Crooks, who was only just outdistanced by the last-named; fourth, Mr. Alderman, with a capital series.

Only two exhibits were staged in the class for twelve Japanese blooms, distinct, Mr. Crooks leading with a fine lot, and Mr. Vallis followed closely with a stand of blooms of almost equal quality.

For six Japanese blooms, distinct, Mr. Crooks was again placed in the leading position with a very nice set of flowers; second, Mr. Drake, with a capital exhibit.

A class for one vase containing five Japanese blooms was not a success, and northern societies appear to need a good illustration of how to make a display of large blooms in vases. In this class Mr. T. Lucas, gardener to Mr. E. Wignall, was placed first with blooms of Miss Nellie Pickett; Mr. W. Spencer, gardener to Miss Roberts, Park Pickett; second with Mr. T. Carrington; Mr. W. Green third with Mrs. Barkley; and Mr. C. E. Abbott, gardener to Mr. J. G. Graves, fourth.

PLANTS

In the district classes were nicely shown, although not numerous. For three trained specimens (incurved) Mr. W. Topham, gardener to Alderman J. Smith, was the only exhibitor, staging three pretty plants, representing Mrs. George Bunde, Mr. George Gleuny, and Mrs. Dixon in pleasing form.

For three trained specimens (Japanese), Mr. Topham led with three handsome specimens of Vivand Morel, Charles Davis, and Lady Hanham, clothed with foliage down to the edge of the pots, and the flowers were large and of good form; second, Mr. Abbott, who exhibited a capital trio.

The Pompons were not very interesting, but the class for three plants of single varieties were charmingly represented. In this instance Mr. Topham was again winner of the first prize.

A very attractive display was made by the three competitors in the class for a group of Chrysanthemums, interspersed with flowering and foliage plants, on a space not exceeding 86 square feet, and arranged with a frontage representing three semi-circular bays. In this instance Mr. Abbott was a good first, having heavy Chrysanthemum blooms, with Crotons, Bamboos, Palms, Grevilleas, Dracenas, Ferns, and other foliage plants all pleasingly disposed; Mr. E. C. Baker, gardener to Alderman G. Senior, was second with a tastefully arranged group, in which original ideas of setting up were conspicuous; Mr. T. Lygo, an amateur, was placed fourth.

A 60 feet group, open to amateurs and cottagers, was a very praiseworthy competition, excellent exhibits being set up. First prize was won by Mr. Charles Cook, with large Chrysanthemums rather formally arranged and a pleasing assortment of Crotons and other foliage plants. Extremely pretty was the second prize group from Mr. F. F. Burton, and one of merit secured third prize for Mr. H. T. Hoadland. The Affiliated Societies' competitions were keenly contested, the class for twenty-four blooms, twelve incurved and twelve Japanese, in not less than eighteen varieties, finding the Nether Hallam Society leading with capital incurved blooms and hardly less meritorious Japanese. The Sun Inn Chrysanthemum Society was second with good Japanese and less even incurved blooms, and the Chesterfield Chrysanthemum Society was third.

In a smaller class for half the number of blooms of the two types the Sun Inn Society was first, the Nether Hallam Society second, and the Mexboro' and District Society third.

THE DISTRICT CLASSES

For cut blooms are always well contested, and the flowers always of a high standard of quality. The most interesting were:—

Twelve incurved blooms, distinct.—First, Mr. Alderman, with good and evenly-built flowers; second, Mr. Charles Scott, gardener to Mr. J. Colley, also in good form.

Twelve Japanese blooms, distinct.—First, Mr. Alderman, with heavy flowers; second, Mr. Scott; third, Mr. T. J. Nelson, gardener to Mrs. A. Barnes.

Six incurved blooms, distinct.—First, Mr. Alderman, for large and deeply-built blooms; second, Mr. Scott, for an even set; third, Mr. Nelson.

Six Japanese blooms, distinct.—In this class Mr. Alderman again excelled with large and fresh flowers of good colour, Mr. Spencer being second, and Mr. Nelson again third.

Six bunches Pompons in not less than four varieties were all freely grown and very pretty.—First, Mr. Lucas, with handsome bunches; second, Mr. R. Agar, gardener to Mr. S. Roberts, M.P.; third, Mr. Scott.

Six bunches singles, distinct, was also a charming class. In this Mr. Spencer was first and Mr. Lucas second with large bunches.

TABLE DECORATIONS

and decorative vases were each pleasingly illustrated. The Rundle family of incurved Chrysanthemums were as interesting as ever. The classes for amateurs and cottagers were contested with the keenest rivalry, and these, together with exhibits of Grapes and Tomatoes, made a grand display. Messrs. William Artindale and Son, S. W. Seagrave, Hiram Shaw and Son, C. A. Ellis, and Messrs. Cliban made magnificent trade displays that were greatly admired.

BROMLEY CHRYSANTHEMUM SHOW.

THIS show, which was held at the Grand Hall on November 11 and 12, was in every way a success. In almost all the classes there was good competition. In the class for group of Chrysanthemums in pots there were five entries, Mr. E. Dove taking first prize, Mr. J. Willis was second, and Mr. A. Owens third.

CUT BLOOMS.

In the competition for the challenge cup, which was for twenty-four incurved and twenty-four Japanese blooms, there were three entries. Mr. J. E. Poole, gardener to A. G. Hubbuck, Esq., took first with a grand lot of blooms, in which S. F. Vallis, Beesie Godfrey, Elsie Fulton, Making

Hero, Comtesse de l'Etoile, Mrs. H. J. Jones, Duchess of Fife, and Miss Nellie Southam were among the best; Mr. C. Payne, gardener to C. J. Whittington, Esq., took second, and Mr. E. Dove third.

In the class for nine vases, three blooms in each, there were three exhibits, Mr. C. Blick taking first with a grand lot of blooms, Mr. J. Stent was second, and Mr. C. Payne third.

In the class for twelve Japanese and twelve incurved there were five entries, Mr. C. Blick being first with well-finished blooms of great size, among them being Vicar of Leatherhead, Godfrey's Sensation, Princess Alice de Monaco, Mrs. S. F. Vallis, C. Blick, Miss E. Seward, and Mrs. J. Hudson; Mr. J. Line was second, and Mr. J. King third.

In the class for twelve incurved blooms there were six entries. Mr. J. King was first, Mr. J. Lyne second, and Mr. W. Pascoe third.

For twelve Japanese blooms there were seven entries. Mr. C. Blick was first with fine blooms of Mme. Paolo Radaelli, Leila Filkins, and others previously named; Mr. W. Pascoe was second, and Mr. J. King third.

Six large Anemone-flowered: Mr. W. Pascoe was first, Delmare, Descartes, and Owen's Perfection being very fine; Mr. Lyne second, and Mr. G. B. Lees, gardener to E. de Q. Quincey, Esq., third.

In the class for six incurved, any one variety, there were eleven entries, Mr. T. E. Brown, gardener to S. F. Page, Esq., being first with fine blooms of C. H. Curtis; second, Mr. J. King, with Duchess of Fife; third, Mr. C. Gover, gardener to J. Small, Esq., with good blooms of Mme. Ferlat.

In the class for six Japanese, one variety, there were only three entries, Mr. J. King being first with Mme. Carnot; second, Mr. C. Blick, with Dorothy Pywell; third, Mr. C. Jordan, with Mrs. Mease.

For six blooms of C. H. Curtis there were five entries, all fine blooms. Mr. Pascoe was first; second, Mr. E. Legg; third, Mr. King.

In the class for twelve Japanese, four varieties, there were six entries: First, Mr. J. Stent; second, Mr. J. Lyne; third, Mr. J. E. Poole.

In the class for six vases of singles, five blooms in each, there were some very attractive exhibits: First, Mr. E. Redden, gardener to G. W. Bird, Esq., with some pretty varieties, among which were F. Redden (deep rose-pink), Crown Jewel, and Mrs. Forbes; second, Mr. J. E. Lees; third, Mr. C. Jordan, gardener to H. Hoakier, Esq.

In the class for a group of miscellaneous plants there were three very good exhibits, Mr. J. Lyne being first with a choice arrangement of Orchids, Clerodendron fallax, Kalachoe flammea, &c. Mr. J. King was a good second, and Mr. J. Stent third.

In the class for nine table plants there were five entries: First, Mr. T. King; second, Mr. Lyne; third, Mr. T. I. Brown.

In the amateur classes there were some very good exhibits of Chrysanthemums.

The classes for trays of vegetables brought out some good exhibits. Fruit was not extensively shown. Mr. W. Taylor was first for black and white Grapes.

Messrs. Bond and Co., local florists, made a grand display of floral arrangements. The same firm also decorated the stage most effectively. Mr. J. J. Chamberlain also had some pretty arrangements in Chrysanthemums and other flowers.

LIVERPOOL HORTICULTURAL ASSOCIATION'S AUTUMN SHOW.

THE twenty-fourth autumn exhibition of the above society was held in the Drill Hall, Edge Hill, on the 11th and 12th inst., the reason of the change being that St. George's Hall was not available. The change in some respects proved to be in the right direction, especially in the matter of space and light, both of these being of the best. To counteract these advantages the distance from the centre of the town and the floor and general view of the building were greatly inferior to the lovely interior of St. George's Hall. The entries proved a record, and it would have been difficult to have found space under the old provision.

PLANTS.

This section well upheld the good form of former years, in fact it is questionable whether the untrained plants were not the finest yet seen at these shows.

Four large-flowered trained Chrysanthemums, Mr. John Rose, gardener to Mrs. Kitchen, was to the fore with well finished plants of Colonel M. B. Smith, Vivand Morel, Mrs. G. Rundle, and Mrs. Dixon; second, Mr. T. Hichman, gardener to W. Earle, Esq. One large flowering plant, Mr. J. Stoner, gardener to F. N. Gossage, Esq., was successful with a heavily flowered untrained plant. Three Pompons: First, Mr. W. Wilson, gardener to H. Cunningham, Esq. Six naturally grown plants: First, Mr. E. Wharton, gardener to J. Findlay, Esq., with good forms.

Group of Chrysanthemums, Mr. G. Osborne, gardener to Dr. Cooke, led with a good arrangement, in which small Crotons and Palms proved effective.

CUT BLOOMS.

These generally proved a pleasing surprise to the lovers of the Autumn Queen. It was generally considered that after the dull wet autumn the flowers would be lacking in substance and depth, but this was not so, for without doubt Mr. J. Davis, gardener to E. Ellis, Esq., Newall, set up the finest lot yet staged at the society's exhibition. The favoured position was due in some measure to the introduction of new varieties; Mr. F. Young was second; Mr. G. Haigh, gardener to Sir W. H. Tate, Bart., third; and Mr. W. Barber the remaining award. It was most difficult to select the best blooms in the premier collection where all were so good.

Eighteen incurved: First, Mr. P. Green, gardener to Colonel Gee, with an excellent lot; second, Mr. E. Osborne, gardener to T. Woodsend, Esq.

Twelve incurred: First, Mr. T. Clarke, gardener to J. Clarke, Esq. Eighteen Japanese: Mr. C. Jones, gardener to E. Evans, Esq., led with a showy box, followed by Mr. P. Greene. Twelve Japanese: Mr. T. Clarke won with fine massive blooms.

Six Anemones: First, Mrs. Vlasto with well-formed flowers. Six reflexed: First, Mr. E. Wharton, also for twelve Pompons. Six vases of single varieties: First, Mr. J. Stoney; and for six vases Japanese, Mr. James Williams was to the fore.

FRUIT.

This was an important feature of the show, although the entries were less than usual, and the want of colour showed the effects of the season.

Six dishes of fruit, distinct: Mr. G. Hammond, gardener to Colonel R. Ireland Blackburne, Hale, staging good Muscat of Alexandria and Madrasfield Court Grapes, with good Apples and Pears; Mr. J. Skitt, gardener to Mrs. Bright, second.

Two bunches of Black Alicante Grapes: Mr. J. W. Raynes won with large bunches finely coloured.

table of Orchids, in which were some fine forms of *Oncidium varicosum*, *Lycaste Skinnerii*, *Cymbidium traceyanum*, &c. Mr. W. Rowlands showed *Begonia Gloire de Lorraine* of fine colour and substance; Mr. F. Roberts, cut *Chrysanthemums*; Mr. John Robson, a charming bank of Carnations; Messrs. Dicksons, stove and greenhouse plants; Messrs. T. Davies and Co., a fine display of Lily of the Valley, Heaths, conifers, &c.; Mr. H. Middlehurst, collection of Potatoes, including many new kinds; Messrs. Sutton, with their new Potato Discovery.

KIDDERMINSTER AND DISTRICT.

THE autumn show of the Kidderminster and District Horticultural Society was held in the Town Hall on the 10th and 11th inst. Countess Beauchamp, accompanied by Earl Beauchamp, performed the opening ceremony before a brilliant and representative gathering. They were received at the Hall by Sir A. F. Godson, M.P., the president of the society, Dr. H. de B. Gibbins, the chairman of the committee, and others. On behalf of the society Miss Gibbins presented Countess Beauchamp with an exquisite shower bouquet composed of Orchids and Carnations.

The arrangements for the show were perfectly carried out by Mr. A. Clark, Mr. W. C. Sadler, and the members of the committee. Fruit was poor and scarce, but the *Chrysanthemums*, groups of flowering plants, and vegetables were most meritorious, and were favourably commented upon by the judges. With the sole exception of fruit, the entries constituted a record.

For a group of *Chrysanthemums* Mr. D. R. Dixon, gardener to Viscount Cobham, Hagley Hall, was the winner of the first prize, Mr. H. Bulmer, gardener to W. H. Smith, Esq., Summerhill, being placed second.

In the class for a group of flowering plants there were a large number of entries. Mr. A. Best, gardener to E. J. Morton, Esq., Wolverley, was awarded the first prize for an attractive exhibit, Mr. H. Bulmer being second, and Mr. D. R. Dixon third.

For three specimen plants, not disbudded, Mr. H. Bulmer was first, but the effect of each of the exhibits in this class was marred by an overuse of stakes. *Le Grand Dragon* was the most noteworthy variety grown in this manner. Cut blooms were much in evidence, and, as nearly all these were staged in special vases provided by the society, the effect was good in the extreme.

For twenty-four blooms, distinct, twelve Japanese, twelve incurred, Mr. D. Thomas, gardener to the Rev. R. S. P. Cheshire, had a grand even lot of flowers. For twelve distinct Japanese, Mr. D. R. Dixon was the winner of the first prize, Mr. A. Lloyd, gardener to L. Kitchen, Esq., Bewdley, being an excellent second.

In the class for twelve blooms of any variety there was keen competition, the first prize going to Mr. R. Hambrook, gardener to G. M. Brown-Westhead, Esq., Lea Castle, who was closely followed by Mr. S. McPhillomey, gardener to G. E. Wilson, Esq., Park Hall, while Mr. D. R. Dixon was third.

Mr. D. Thomas was first for twelve blooms, six Japanese and six incurred, and Phœbus in the former section, while Mrs. M. Liger and Matthew Russell were the best incurred.

For six Japanese Mr. R. Hambrook led, W. R. Church, Australian Gold, and Nellie Pockett being especially noticeable. The second prize fell to Mr. H. Matthews, gardener to E. Collins, Esq., Stourport. Floral exhibits were good, especially the bouquets and table decoration, the chief winners being Mr. G. Barrett, Mr. A. Best, and Mr. D. Talbot.

Cyclamens were well shown, as also were Ferns and table plants, but Primulas were poor. In the classes for amateurs, Mr. B. Howard, Kidderminster, won all the first prizes for *Chrysanthemums* in the face of keen competition, a really meritorious performance. With the sole exception of Grapes, fruit was poor throughout, but vegetables in all sections were excellent. The premier collection was staged by Mr. D. R. Dixon.

NON-COMPETITIVE EXHIBITS.

A magnificent collection of fruit was staged by Messrs. W.

B. Rowe and Son, Barbourne Nursery, Worcester, comprising handsome dishes of Apples and Pears. A splendid lot of trees and fruit of the new Apple King Edward VII. was staged, and this was given a certificate of merit. Several most promising seedlings were noted, particularly a cross between Allriston and Blenheim Orange.

R. B. Martin, Esq., M.P., Overbury Court, Tewkesbury (gardener, Mr. Harvey), and Alfred Baldwin, Esq., M.P., Wilden House, Stourport (gardener, Mr. F. Walters) respectively sent fine collections of *Chrysanthemums*, and were awarded the society's special certificate. On both days the hall was thronged with visitors, with the result that a profit of over £25 was realised.

CHESTER PAXTON SOCIETY.

It is somewhat unfortunate that this and the Liverpool Society clash, as they are both of sufficient importance to attract visitors from a distance. The present show was of the usual good form, well arranged, and of an interesting character. Owing to pressure upon our space only the first prize-winners can be given except in the most important classes.

FRUIT.

Desert Apples.—Ribston Pippins, Mr. J. Sanderson; Cox's Orange Pippin, Mr. J. Sanderson; King of Pippins, Mrs. Rolt; Allington Pippin, Mr. W. G. Townsend Currie; Gascongne's Scarlet, Rev. L. Garnet; Blenheim Orange, Mr. J. Sanderson; American Mother, Mr. W. G. Townsend Currie; Dutch Mignonne, Mr. J. Sanderson; any other mid-season, Mr. J. Sanderson; any other late, Northern Spy, from Mr. T. Gibbons Frost.

Desert Pears.—Marie Louise, Mr. W. G. Townsend Currie; Pitmaston Duchess, Rev. L. Garnet; Doyenné du Comice, Rev. L. Garnet; Glou Morceau, Rev. L. Garnet; Beurré Diol, Mr. Charles Threlfall; Winter Nellis, Mr. W. G. Townsend Currie; any othersort in ripe condition, Emile d'Heyst, Rev. L. Garnet; any other late variety, Rev. L. Garnet; kitchen variety, Uvedale's St. Germain, Sir George Meybrick, Bart.

Kitchen Apples.—Peasgood's Nonsuch, Mr. Thomas Day; Newton Wonder, Rev. L. Garnet; Mère de Ménage, Miss Humberston; Lane's Prince Albert, Mr. Thomas Day; Dumelow's Seedling, Rev. Canon Robins; Wareham Russet, Mr. T. R. Flemming.

Desert Apples, six distinct sorts: First, Mr. J. Sanderson, with a very good lot; second, Rev. L. Garnet.

Kitchen Apples, twenty-four distinct varieties: First, Rev. L. Garnet, the finest being Scarlet Pearmain, American Mother, Annie Elizabeth, Burr Knott, Melon Apple, &c.; second, Mr. R. R. Salmon.

Cooking Apples, twelve distinct varieties: First, Mr. J. Sanderson, with fine fruits. Six varieties: First, Mr. T. Gibbons Frost.

In the classes open to farmers and those not employing a gardener the leading winners were Messrs. George Faulkner, J. Wrench, Frank L. Rawlings, J. R. Carter, Henry Large, J. C. Thornton, and J. Powell.

Six red Tomatoes: Mr. R. F. Bonnalie.

Two bunches of black Grapes: First, Mr. John Dutton, gardener to E. Dixon, Esq., with Black Alicante. Two bunches of white: First, Mr. W. Pilgrim, gardener to Sir G. Meybrick, Bart., with Muscat of Alexandria.

CHRYSANTHEMUMS.

Group of plants, Japanese and incurred varieties: First, Mr. T. Gilbert, gardener to T. Gibbons Frost, Esq., with a fine lot of blooms. Mr. G. Stubbs, gardener to Major MacGillycuddy, was a splendid second.

Group of singles: First, Mr. A. Ellis, gardener to Dr. Lawrence; Mr. G. Stubbs again being second.

Eighteen cut flowers, six varieties, Japanese, to be shown in vases: Mr. Charles Threlfall led, having good blooms of Vicar of Leatherhead, Matthew Smith, Mme. Gustave Henry, &c.

NON-COMPETITIVE.

Messrs. Clibran staged a splendid lot of *Celosias* in very fine colour; Messrs. Dickson showed stove and greenhouse plants; Mr. McHattie, wreaths and decorative plants. Mr. N. F. Barnes, gardener to the Duke of Westminster, sent a magnificent table of fruit, comprising a dozen bunches of Grapes in baskets and on stands, Melons, and fifty or sixty dishes of highly-finished Apples and Pears, the table beautifully interspersed with cut *Chrysanthemums* and other flowers.

Mrs. Welsby secured the premier award for the table decoration in a strong class of ten competitors, using Tea Roses on long stems.

Mr. G. Milin, as usual, carried out efficiently the secretarial duties.

WINCHESTER.

In the Guildhall the twenty-first annual autumn show was held on the 11th and 12th inst. The entries in cut blooms were not so numerous as in some seasons past, but the quality was quite up to the average. Plants were capitally shown, the classes devoted to the ladies' vases, stands, &c., were quite a feature. Fruit, especially Grapes, were excellent. Vegetables were numerous and good. The arrangements were, as usual, quite of the best, under the skilful guidance of Mr. C. Shenton, the hon. secretary, aided by an efficient committee.

CUT BLOOMS.

The principal class was that for forty-eight, half to be incurred and the remainder Japanese. For the handsome prizes offered there was but one entry, that from Mr. W. Neville, gardener to F. W. Flight, Esq., Cornstiles, Twyford, Winchester, who staged in both sections typical blooms. Especially fine were F. S. Vallis, W. R. Church, Lord Ludlow, H. Stowe, Edith Hughes, C. H. Curtis, Princess of Wales, Duchess of Fife, and Hanwell Glory.

For thirty-six Japanese, in not less than twenty-four varieties, Mr. J. Wasley, gardener to J. B. Taylor, Esq., Sherfield Manor, Basingstoke, won quite easily with hand-



HOW THE VINE IS TRAINED IN MARKET NURSERIES.

(Other conditions being equal, the Vine will yield better crops of Grapes and live longer when it has two stems than when restricted to one.)

Two bunches, any other black: First, Mr. Thomas Reid, gardener to D. Wilson, Esq., with large bunches of Barbarossa.

Two bunches of Muscat: First, Mr. W. Wilson with well-finished examples.

Two bunches any other white: First, Mr. J. Skitt won with Golden Queen.

Four bunches, two black and two white: First, Mr. J. Skitt, who secured the chief award with Muscat of Alexandria and Mrs. Pince in good form; Mr. G. Hammond second.

Four dishes dessert Pears: Mr. H. Reynolds, gardener to W. Johnstone, Esq., had the best.

Six dishes dessert Apples: Mr. J. Lee won with good coloured examples. This exhibitor also scored eight dishes of culinary and most of the other classes.

NON-COMPETITIVE.

These formed an interesting addition, certificates of merit being awarded to Messrs. J. Cowan and Co., for a fine

some examples of Matthew Smith, Mme. Carnot, C. Penford, Mrs. J. Cleeve, Mrs. H. Emmerton, J. C. Neville, Mrs. G. Lawrence, Edwin Molyneux, and others. Mrs. Neville was second with blooms a trifle smaller all through.

In a class for twelve Japanese distinct, Mr. L. Dawes, gardener to Mrs. Agilvie, Hambledon, secured the leading award with excellent blooms; Mr. R. J. Ransom, gardener to C. A. Linzee, Esq., Elm Lodge, Bishop Sutton, second.

In the class for twelve Japanese, in not less than eight varieties, the competition was keen. Mr. A. J. Marsh, gardener to M. Hodgson, Esq., Morton House, Kingsworthy, Winchester, was distinctly ahead with large, fully-developed flowers. Mr. F. Smith, gardener to Canon Valpy, The Close, Winchester, was a good second.

Mr. A. Marsh secured the leading place for twelve incurved.

Japanese in vases were well represented. Mr. Wasley won for three blooms each of nine varieties with large, highly-coloured examples; Mr. Neville was a good second.

For six varieties Mr. Marsh won with an excellent set; second, Mr. G. Adams, gardener to Colonel Dickens, Edge Hill, Winchester; Mr. F. Smith a close third.

In the amateur division Mr. E. Yarrow, 38, North Walls, Winchester, staged a remarkably fine stand of twelve Japanese, winning first prize quite easily.

Plants were numerous and good. For a group of Chrysanthemums in a space 8 feet by 7 feet, the quality of the blooms to be the leading feature, three entered, and as all were good the display on one side of the hall was good. Mr. H. G. Pittman, gardener to Mrs. H. Curtis, Oakwood, Otterbourne, was first with dwarf plants well clothed with foliage, carrying good blooms, especially of incurved varieties; second, Mr. Pearce, gardener to H. E. Johnson, Esq., Northgate Place, Winchester; third, Mr. R. Stone, gardener to the Rev. Archdeacon Haigh, The Close, Winchester.

Plants for conservatory decoration, dwarf and having good blooms, with good foliage, are much encouraged here. For nine distinct, in 9-inch pots, Mr. G. Adams was first with typical examples. For nine plants, white and yellow varieties, Mr. Adams was again the most successful, with grand examples of C. H. Curtis, Mrs. Judson, Mrs. Lewis, Mrs. Greenfield, and Mme. Carnot, averaging 2 feet 6 inches high, and carrying blooms quite up to exhibition form. Mr. H. Gigg, gardener to the Rev. M. Mooroom, Winchester, was a close second.

Miscellaneous plants arranged for effect were quite a feature. Mr. E. Long, gardener to F. C. Burch, Esq., Winchester, was an easy first with choice Orchids tastefully associated with suitable foliage plants. Primulas, Cyclamens, Begonias, and table plants were grandly shown.

FRUIT AND VEGETABLES.

Grapes were a feature, so well were they shown. For three bunches, distinct, Mr. W. Mitchell, gardener to J. Willis Fleming, Esq., Chilworth Manor, Romsey, was first with capital examples of Mrs. Pince, Muscat of Alexandria, and Alicante; Mr. G. Wasley second; Mr. J. Hughes, gardener to P. Balli, Esq., Twyford Lodge, Winchester, third. For two bunches Mr. Wasley with really fine Muscat of Alexandria was first, closely followed by Mr. Mitchell with Mrs. Pince for second place.

Vegetables were numerous and good. Mr. G. Ellwood, gardener to W. H. Myers, Esq., M.P., Swanmore Park, Bishop's Waltham, won first place in collections of six varieties (prizes offered by Messrs. Sutton and Toogood). In both classes the produce was very fine. Mr. G. Brest, gardener to F. R. Layland, Esq., The Vyne, Basingstoke, second in both classes.

Messrs. E. Hillier and Son, The Nurseries, Winchester, received the society's gold medal for a wonderful exhibit of Apples. Golden Spire, Hillier's Easter Orange, Newton Wonder, Cox's Orange Pippin, and King of the Pippins were especially fine.

HEREFORD FRUIT AND CHRYSANTHEMUM SHOW.

MEMBERS of this society may well be congratulated upon the success of their show, which was held at Hereford on the 4th and 5th inst. in the Shire Hall. Hardy fruit, as is invariably the case here, was shown in great quantities, and Apples especially were of exceptionally good quality when the conditions of the season are considered. The fruit was of good average size, and the colour, particularly that of the Herefordshire exhibits, was generally very good. Of late years floral decorations, used in accordance with the discretion of the exhibitors, have been allowed to be employed in staging the leading collections of Apples, and it may be said that this has a very pleasing effect and relieves the otherwise somewhat stiff appearance of long tables. Chrysanthemums were, perhaps, better staged in respect to the quality of the bloom than has hitherto been the rule at Hereford, and the vase section of these was decidedly attractive. The weather on both days was very favourable, and the show was visited by a large gathering of admiring patrons.

For a group of Chrysanthemums, 12 feet by 7 feet, Mr. Whiting, White Cross Nursery, Hereford, had the best of two exhibits in this class. Good plants, with grand blooms, were well put together. The second place was taken by Mr. S. Jones, gardener to T. Llanwarne, Esq., Ayleston Hill, with a similar group.

For a miscellaneous collection of flowering and ornamental foliage plants in a space of 10 feet by 7 feet, Mr. Hammond, gardener to H. Godsell, Esq., Stroud, secured chief honours with a pretty combination of Cypridolus, Cattleyas, Dendrobiums, and Begonias, together with Palms, Crotons, Ferns, &c. Mr. Grindrod, gardener to J. Bates, Esq., Whitefield, followed closely.

CUT BLOOMS.

Twenty-four Japanese, distinct varieties: Among four exhibitors in this class Mr. Samson, gardener to Mrs. Hope of Whitney Court, was placed first with heavy, finely-coloured blooms, among which Kimberley, Mrs. G. Mileham, F. S. Vallis, Godfrey's King, Beattie Godfrey, Godfrey's Masterpiece, and Mrs. Coombes were the best. Mr. Ham-

mond was a close second, staging fine blooms; and Mr. Grindrod was a good third.

Mr. Samson was again placed first with twelve blooms of Japanese, and staged similar sorts as in the larger class. Mr. Smith, gardener to Sir James Rankin, Brynwyn, was second. Mr. Froggatt, gardener to P. L. Walker, Esq., Belmont, was third. There were six exhibitors in this class.

In a class for six vases of blooms with long stems, one variety undivided in each vase, arranged with any foliage, Mr. Humphries, gardener to the Earl of Chesterfield, Holme Lacy, was awarded first prize, Mr. Grindrod second, and Mr. Froggatt third.

For four vases, three blooms in each, of distinct varieties, Mr. Samson again secured leading honours, while Mr. Whiting was a close second, and Mr. Hammond third.

A single vase of any variety, arranged with any foliage, brought Mr. Talbot, gardener to Sir G. Cornwall, Moccas Court, to the front, with Mr. Humphries following.

FRUIT.

Collection of fruit, six dishes: Mr. Grindrod took a decided lead in this class with capital dishes of Gros Colmar and Muscat of Alexandria Grapes, Doyenné du Comice Pears, King of the Pippin Apples, &c.; Mr. Froggatt, who was the only other exhibitor, being placed second. Mr. Grindrod was also a leading exhibitor in the Grape class and took chief place both in a class for white varieties and that for any black variety (except Gros Colmar) with good bunches of Muscat of Alexandria and Gros Maroc. Mr. Froggatt was first for Gros Colmar, and Mr. Grindrod second. The last-named exhibitor also secured the prize offered for the best bunch of Grapes in the show with a capital bunch of Muscat of Alexandria.

Collection of Apples, not to exceed fifty dishes: Mr. Watkins, the well-known Hereford grower, was the leading exhibitor in this class, and staged a good representative lot of the best varieties. Mr. J. Lee, Bevington, Cheshire, was a good second, and had excellent dishes. Messrs. Petwre Brothers, Tillington Nurseries, Hereford, were placed third with an almost equally good lot of fruit.

Mr. Wootton of Byford was the only exhibitor in a class for thirty dishes, and staged excellent fruits of Newton Wonder, Cox's Pomona, Lord Derby, Golden Noble, Cornish Aromatic, &c.

A class for twelve dishes of dessert and twelve dishes of kitchen Apples attracted five competitors, and of these Mr. Jones, gardener to C. W. Hazlehurst, Esq., Morton Court, was awarded the premier position, and staged as his best dishes Royal Jubilee, Loddington Seedling, Golden Noble, Stirling Castle, Bedfordshire Foundling, and Emperor Alexander. The second place was deservedly taken by Mrs. Bashill.

Twelve dishes of culinary varieties: With a fine lot of large, clean fruits, Mrs. Bashill gained the leading place, Mr. Jones second, and Mr. Nunn, gardener to Mrs. Woodhouse, Burghill Court, was placed third. Mr. Grindrod was awarded an extra prize in this class.

For eight dishes of dessert Apples, Mr. Jones, with a capital set of clean, brightly-coloured fruit, came to the front; Mrs. Bashill was a near second, and Mr. Whiting, Credenhill, third.

The single dish classes for leading varieties brought some of the best fruit in the show. Among many entries in each class Messrs. Campbell and Gating, Glemton Court, Ross, were first in each case for Cox's Orange and Ribston Pippins, and also for Lane's Prince Albert. For Blenheim Orange and Bramley's Seedling Messrs. Petwre Brothers were first; Mr. Davis, gardener to C. King-King, Esq., Bodenham, was first for Dumelow's Seedling; Mr. Lewis, gardener to Major C. C. Hawkhaw, first for Warner's King; and similar positions were taken by Mr. Ballard, Colwell, for Worcester Pearmain; Mr. Jones, Morton Court, for Newton Wonder; and Mrs. Bashill, for Peasegood's Nonsuch.

For the best dish of culinary Apples in the show, Mr. Whiting, Credenhill, won with a grand dish of Stirling Castle. The best dish of dessert Apples was shown by Messrs. Campbell and Gating, large, highly-coloured Cox's Orange Pippin; and the best dish of Pears came from Mr. Humphries, who staged Doyenné du Comice.

The only collection of Pears staged in a class for twenty-four dishes was an excellent one arranged by Mr. Humphries, Holme Lacy. For twelve dishes Mrs. Bashill was also the only exhibitor, and she brought grand fruits of leading kinds. Mr. Jones, gardener to H. L. Lutwyche, Esq., was the successful exhibitor for eight dishes, and staged good, clean fruits.

TRADE EXHIBITS.

The King's Acre Nursery Company, Hereford, had a large display of Apples and Pears in excellent condition, as well as a beautiful stand of floral designs in the form of wreaths, crosses, bouquets, composed of Orchids, Lilies, and other choice subjects, and a good collection of decorative plants.

Mr. Watkins staged a long table of choice Cactus Dahlias, and Mr. Wilson, as usual, arranged a charming stand of floral wreaths, crosses, bouquets, and similar exhibits, which attracted much attention. He also staged vases of decorative Chrysanthemums with a display of pleasing taste.

FRENCH NATIONAL CHRYSANTHEMUM SOCIETY.

On the 6th inst. the above-named society opened its eighth annual exhibition and conference in the Palais Rameau at Lille. There was a fine display of pot plants, cut blooms, and miscellaneous exhibits, including various floral compositions, vases, baskets, dinner-table decorations, and the like.

The ground floor of the Palais Rameau was cut up into a series of paths with beds slightly raised from the ground, intervening an arrangement that lent itself capably to the free circulation of visitors. Many of these came from all parts of the country, from Belgium, from Holland, and a deputation was present from the English National Chrysanthemum Society, consisting of Messrs. T. Bevan, J. H. Witly, Harman Payne, and Runchman. An interesting presentation took place almost as soon as the English visitors appeared on the scene, when M. Philippe Rivoire, the secre-

tary of the French society, advanced towards the English visitors, bidding them a cordial welcome to French soil, and expressing the thanks of his society for the visit. He then handed to Mr. Harman Payne, as foreign secretary of the English society, a silver-gilt medal mounted on a crimson velvet stand with a small tablet attached as a souvenir of the visit of the English society's deputation.

The general aspect of the show was bright, attractive, and very artistic. Palms, Ferns, and ornamental foliage plants were freely and judiciously employed for decorative effect in the numerous groups set up. All the exhibits, including the cut blooms, were staged in the beds on the floor, some of the minor classes for cut blooms being arranged in glass bottles on tables in the upstairs gallery.

Messrs. Vilmorin-Andrieux and Co., the well-known Parisian nurserymen, staged several charming groups of pot plants, and were awarded a gold medal for the display, which contained many capital examples of most of the well-known standard sorts grown in this country, although there were many others but little known here. These groups were effectively arranged, being surrounded, as all others in the show were, with an edging of green turf about a foot wide. Messrs. Vilmorin, however, varied the character of their exhibits by adding a fringe of a pretty little yellow Pompon Gerbe d'Or, behind which there was a broad band of a dwarf rosy-coloured decorative Japanese called Baronne de Vinois.

Other exhibitors in the pot plant classes were numerous, some of the displays being very noteworthy, but being chiefly from local exhibitors there would be but little interest to our readers in recapitulating their names or the varieties shown.

To M. Dagniaux a gold medal was awarded for a fine display of cut blooms, a charming group decorated with Maidenhair Ferns, and at various intervals several large vases filled with immense specimen blooms. A similar award was made to M. Dougrement for a collection somewhat resembling the other in style. In the section for cut blooms a gold medal was also awarded to M. Montigny for a collection of new varieties of 1902-3, comprising English, French, and Italian seedlings.

Seedlings were shown in grand form by M. Ernest Calvat, to whom was awarded the grand Prix d'Honneur. Altogether there were about twenty of the large, solid-looking monster Japanese for which this grower is so noted, and a reference to these will be found in a subsequent issue.

M. A. Nonin, of Paris, was awarded a silver-gilt medal for seedlings, showing an interesting collection of moderately large-sized blooms, some of which were uncommonly promising, and which we may notice later in the season. Among other novelties M. Verhalk exhibited a large number of plants in pots of a sport from Wm. Tricker. The variety is a rich rosy bronze colour, with a golden centre and is called Souvenir de Mme. H. Caullier.

M. Delobel was the exhibitor of a very pretty dinner-table decoration, composed of cut blooms of Chrysanthemums, vases, baskets filled with Orchids, White Lilac, Ferns, Violets, Gloire de Lorraine Begonia, &c.; a gold medal was awarded for this. A like award was made for a charming floral composition by M. Deleelle, and among other contributors to the beauty of the show were Messrs. Lepout-Grimoux, Mulnard (Palms, foliage plants, Chrysanthemums in pots, &c.), Delanoy, Van der Heede (Begonias and Cyclamens), Rygole (bush plants of Chrysanthemums), and many others too numerous to mention.

The conference was held in the afternoon in the hall of the local horticultural society, when M. Viger presided. There was a large attendance of members, among whom we noticed most of the eminent Continental Chrysanthemum men, such as MM. Abel Chatenay, Ph. Rivoire, Montigny, Mulnard, Ernest Calvat, Brunat of Puitiers, Galesloot of Amsterdam, Ernest Piereux of Ghent, Rozam-Bouchariat Chabasse, Choulet and Dubrueil of Lyons, Nonin, Lionnet and Chant of Paris, A. Cordonnier (both father and son), Cochet, Truffaut, and the members of the English deputation already mentioned, besides many others.

Papers were read on various subjects relating to insect pests and diseases of Chrysanthemums and their remedies; discussions ensued, and great interest was taken in all the proceedings.

In the evening at seven o'clock a grand banquet was held. Here again M. Viger presided over a joyful company, gathered together from many distant parts to pay their homage to the Queen of Autumn. The band of the 43rd Regiment of Infantry played selections of music during the intervals between the speeches. Decorations were bestowed on several gentlemen who had rendered valuable service to the society, and the proceedings were brought to a close by Mr. Harman Payne responding to the toast of the foreign members of the jury.

On the second day there was a further meeting of the conference, and visits to local nurseries were made. Altogether the gathering was a most enthusiastic and enjoyable one, and everyone seemed bent on doing his utmost to promote the general happiness and comfort of the members present.

PARIS.

A VERY fine Chrysanthemum show, the best we have yet seen on the Continent, both for quality and extent, was held on November 4 to 11 in the large greenhouses on the Cours la Reine, Paris, under the auspices of the National Horticultural Society of France. Among the visitors, of whom there must have been many thousands, for the show was densely crowded, we noticed growers from all parts of the country, showing how great is the interest in the popular flower in France. During the past seven years great progress has been made, and the quality of the plants in pots and the cut blooms was of a very high order of merit. The exhibitors numbered something like 200, some of them showing in several classes, so that our readers will see we cannot pretend to do more than give a brief superficial sketch of the show as a whole. The show was arranged in two large glass structures originally belonging to the International Exhibition of 1900.

For present purposes they were connected by a kind of canvas-covered corridor, so that, when once under cover, the visitor could go round the show without having to come out into the open again. Novelties and seedlings were numerous, and the floral committee awarded, to our mind, an unusually large number of first-class certificates, one exhibitor securing no fewer than twenty-four. The building was approached through a kind of promenade, arranged with seats at intervals and long lines of miscellaneous exhibits. Trained fruit trees in all kinds of shapes, garden pottery, greenhouses, frames, and many other exhibits incidental to the gardening art were arranged on both sides of this promenade in great variety.

On entering the building our attention was first attracted by the sight of two fine semi-circular groups of plants in pots—one with a square front ornamented with Carnations, and the other shaped in a similar fashion, but the front filled in with plants of Begonia Gloire de Lorraine. These were shown by M. Aug. Nonin, and included many finely-grown plants bearing blooms of such varieties as F. S. Vallis, everywhere staged in first-rate condition; Jean Calvat, new; Mermald, François Filon, a large, deep golden-yellow, much used in these Paris groups; Princesse Alice de Monaco, M. White Popham, Duchesse d'Orléans, Rajah, golden-yellow; Mme. Paolo Radacelli, of which there were some beautifully coloured blooms; Mabel Morgan, Sada-Yacco, white; Paris 1900, a nicely shaped Japanese incurved, better-yellow; Charles Schwarr, a new crimson of bright reddish hue; Mrs. Barklay, Charles Longley, General Hutton, very large; Miss Alice Byron, Mr. T. Carrington, and so many others of equal merit in their respective colours that we cannot enumerate them.

Around these two groups, and sweeping the circle entirely, a wide path intervening, was a continuous bank of plants in pots staged by M. Magne, in which we noticed many equally fine specimen blooms, but perhaps in even greater variety than in the exhibit of the preceding.

We now pass into the main portion of the first large greenhouse, and are at once struck with the artistic and effective way in which the ground plan of the show is laid out. All the exhibits, excepting the fruit, which was on tables and in some cases under glass, were arranged in beds on the ground. These beds were cut up into various geometrical shapes, intersected with wide paths to allow free passage between them. The plants in pots, and the bottles containing the cut blooms, were covered with soil, many of the beds being bordered with freely-flowered Pompons, and the whole display forming a charming winter garden, in which large Pines and Ferns formed a conspicuous part.

Right and left of us as we pass in under the main roof we notice a large contribution from Messrs. Leveque et fils, whose groups comprised a large number of varieties, many of which we failed to recognise, being Continental varieties from raisers perhaps whose novelties are but seldom imported into this country. But those we did know were very well done. A special note must be made of Lieut.-Colonel Decroiset, the finest and largest new yellow Japanese of the season. The same firm also had a very pretty exhibit of Carnations in great variety.

Several important groups came from Messrs. Vilmorin-Andrieux and Co., who staged on an expanse of green turf some plants and groups of Pompons and freely-flowered plants of Chrysanthemums, forming to the English eye quite an original effect. Besides these there were two side groups of plants in pots in which great variety of choice was displayed. Here we saw M. Nicolas Balu, a fine rich deep yellow; Electra, a bright crimson variety, very useful for grouping; Princesse Jeanne Bonaparte, pale bluish, several of the firm's new seedlings, and others, such as President Bonin, Mermald, G. J. Warren, R. H. Pearson, Hairy Wonder, Colonel W. B. Smith, William Seward, F. S. Vallis (again in grand form), J. R. Upton, and many others previously mentioned in other exhibits.

Other exhibitors in pot plants classes were far too numerous to mention, many of the lots being of a high order of merit, and showing a great improvement upon past years' productions.

Several medals were awarded to M. Caveon, who showed standards, quite a number of them being grafted plants bearing many different kinds on a plant, curious to look at but otherwise of little interest.

Another curious exhibit which was awarded a gold medal was staged by a Japanese gardener, Mr. W. Hata. It consisted of four varieties, grown in pyramids after the Japanese style. They were ordinary European varieties, freely flowered, and grown in large wooden tubs or boxes.

Some fine collections of cut blooms were shown by M. F. Couillard, M. Rosette of Caen, M. Molin of Lyons, and several others. The first-named had a gold medal for his exhibit. A gold medal was also awarded to M. Rosette, whose cut blooms were very excellent examples, the best being Secretaire Daubeny, a fine hairy Japanese incurved, colour golden buff and bronze, being peculiarly striking; Mme. Brandon, another of the same type but of a rosy purple shade, was equally attractive. An Anemone called Enterprise, a very large Japanese kind with tubular florets of bright rosy pink with a yellow disc, was remarkable for its dimensions.

In a group not for competition a young gardener, M. Pequenard, made a grand display of the very finest cut blooms we have ever seen at any foreign show; they would certainly have done justice to many of our leading English specialists in big bloom culture. But we must pass on to the

CLASS FOR SEEDLINGS,

and these were shown in lavish numbers, giving the floral committee a pretty hard morning's work to adjudicate upon them. Our chief interest lay, of course, in M. Calvat, who set up his blooms in five of each sort; many of them, however, had suffered by the long journey from Grenoble to Paris, but very promising were Marguerite de Mone, a very large Japanese, colour pale bluish; Gabrielle Martin, also one of the large Japanese varieties, colour deep canary yellow, tinted carmine; Mme. B. Oberthur, very large in size, a fine flower, deep in build with long curly florets, colour creamy

white; Alliance, one of the finest Japanese, immense in size, flat medium-sized florets, deep rich golden-yellow; Mme. Emilie Rosette, another monster Japanese with long, flat pointed florets, colour pale lilac-mauve with reverse of silver; Marquise Visconti Venosta, a long petalled Japanese with drooping florets, very fine blooms, colour white; Societis, chestnut-red on a yellow ground; Shakers, dull chestnut with gold reverse; Comtesse de Grailly, another Japanese of immense size with very long florets, silver-white passing to pale flesh colour; Jea. Paquet, Japanese, long twisted florets, colour deep golden-yellow; Mlle. Anna Debono, also one of the very biggest, a Japanese with very long florets of great substance, colour pure white; Souvenir de Victorine Calvat, another monster, very deep, full, and double, colour soft shade of pale pinkish flesh. Among this collection were several other large-sized blooms, but to our taste the colours were less attractive than those selected above.

Other exhibitors who staged new seedlings were M. Alfred Chantrier of Bayonne, M. de Reydellet of Valence, M. Lionnet, M. Jean Héraud, to all of whom awards were made. Exceptional interest, however, was aroused in the exhibit of a new grower, who staged a fine lot of heavily built, substantial-looking Japanese varieties in fine form. This grower is M. le Marquis de Puis, and among his new things we were specially struck with the following as being noteworthy novelties likely to please the English taste, viz.: Pomponne, very fine Japanese, enormous size, with deeply grooved florets, colour rosy amaranth; Souvenir de Montbrun, a very striking and effective Japanese of good build, colour deep ochre-yellow, tinted carmine; Congrès de Bordeaux, Hyphom, Mme. Magne, deep crimson-amaranth, with silvery reverse; and Mme. de Castelbajac, a very pretty soft salmon-rose.

Last, but not least, in the exhibits for new seedlings was our excellent colleague, M. Aug. Nonin, who has already raised a good number of beautiful varieties. In his lot we selected, as some of the most attractive, Alphonse Daudet, a pretty amaranth Japanese of medium size, but very attractive; Fleur d'Automne, a deep golden-yellow novelty of the Japanese type, also most promising; Albert Maumene, a fine Japanese seedling, bright rosy purple, with silvery reverse; Amateux Marchand, a new crimson and gold Japanese; Mme. Jean Pige, a Japanese with very curious twisted florets, deeply-built blooms, purple-mauve; Ill de France, purple; Professor Tillier, deep crimson and gold; Lamartine, a yellow sport from Mme. Gabrielle Debie.

Fruit, vegetables, Cyclamens, Carnations, Begonias, Dahlias, and many other things were shown in rich profusion. Altogether the show was a remarkably fine one, and those visitors from England who were present were unanimous in their high appreciation of it as a display, and of the arrangements in connexion with it.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 80, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Names of plants.—S. D. Walsh.—salvia Horminum; it belongs to the Sage family, or Labiate.—L. E. Holding.—Cynochos Warcewiczii.

Eremurus from seed (A. CONSTANT READER).—It is not too late to sow the Eremurus now in the place you suggest, using a light sandy soil for a seed bed.

Chrysanthemum cuttings (A. CONSTANT READER).—The Chrysanthemum cuttings will also root now if kept close for a few days and shaded during bright sunshine only.

Mangosteen (S. K. D.).—You might refer to "Roxburgh's Flora Indica," edited by C. B. Clarke, page 441 (London: W. Thacker and Co. 1874); and Kurz's "Forest Flora of British Burma," vol. I., pages 87 and 58 (Calcutta, 1877). The fruit varies from five to eight celled, and the peltate stigma, which is persistent on top of the globular fruit, would also be of the same number of lobes.

Spots on Apple (L. G.).—The spots are caused by a fungus which attacks some varieties of Apples and Pears more than others. We would suggest spraying the tree with 1 lb. of crude potash and 1 lb. of caustic soda, dissolved in ten gallons of water, wearing stout gloves while spraying, and only applying this mixture while the trees are dormant. If all parts of the tree are moistened with the above the germs of the fungus will be killed. The name of the Apple is Cobham.

Various questions (A. M. C.-S.).—1. The time at which they were potted has doubtless a good deal to do with your Azaleas losing their leaves, as this operation, if necessary, should have been done in spring after the flowering season was over. Again, a temperature of 50° to 60° would have been better for plants freshly taken into the greenhouse, and a very great mistake has been made in watering them with the nitrate of soda, for on no account should any pot plant whatever be given stimulants immediately after potting, not, in fact, until the new roots have taken possession of the fresh soil, and are, therefore, in a position to immediately avail themselves of the additional

food, whereas, applied directly after potting, it renders the new soil unfit for the delicate fibrous roots which first penetrate therein. To maintain a temperature of 60° to 70° you must have had a fair amount of fire-heat, and in that case syringing twice a day would not be too much, but in a structure kept at 50° to 60° even in the brightest part of the day will be sufficient. For Azaleas the soil must be kept moist, not saturated. Another question suggested by your letter is whether the actual potting was properly done, for Azaleas, in common with their allies the Heaths, need much more careful potting than most plants. The most suitable compost is good fibrous peat and silver sand. You will find that Azaleas from the great number of their fibrous roots naturally form a very compact ball, and in repotting it is absolutely necessary to press the new soil down as firmly as the old, otherwise the water will pass through the fresh portion, leaving the old ball of earth untouched, and consequently it soon gets dry. This may, perhaps, be the case with yours. 2. We should say that the most probable cause of your Lomaria gibba losing its fronds was due to its situation, for at its best it is not a good London plant. True, under favourable conditions it will grow well enough in the summer, but when autumn sets in with the fogs, of which we have already had some experience, it gradually dies. At the same time, it ought not to have been repotted till the spring; indeed, generally speaking, greenhouse plants within the London area should, unless it is absolutely unavoidable, never be repotted between September and April. 3. Funkias are quite hardy, and should be left in the open border. 4. There are so many Campanulas that it is impossible to give a definite answer, but if, as we expect, it is C. leophylla or its white variety alba—so much grown in pots or baskets—it is best in a cold frame, giving during the winter just enough water to keep the soil moist, with an increase in spring.

Roses for low lattice or wires (DRINA).—We think the height of the proposed lattice work should be about 2 feet 6 inches. If higher than this the view of the beds when in bloom would be somewhat impeded. Even at 2 feet 6 inches the plants will doubtless overtop the lattice work and appear like a low hedge of beautiful Roses. Varieties very suitable for this purpose are as follows: Bouquet d'Or, Alister Stella Gray, Billiard et Barré, Gustave Regis, Belle Lyonnaise, Dr. Rouges, Longworth Rambler, L'ideal, Mme. Pierre Cochet, Joseph Bernacchi, W. Allen Richardson, Mme. Chauvry, M. Desir, Mme. Moreau, Pink Rover, Mme. Jules Siegfried, Bardou Job, Gloire des Rosomanes, Mme. Wagram, Gräfin an Teplitz, and Mme. Abel Chataenay.

Making Apperagus beds (F. W. WRELEY).—As this is the best season to make new beds, it may be well to go into details concerning the work, which is best done from now till the end of February. You have given us no details as regards soil, or position in which you will make the beds. These two are most important, especially the first-named, and under the circumstances we shall have to deal with both heavy and light soils, as by so doing it will be helpful to other readers. Another detail you do not mention, and that is whether you intend to plant, say, one or two year old roots, or if you will sow seed. These are minor matters, but in making the bed the work can be done so that either plan is made more workable. You ask if there is a special manual on this subject. "Gardening for Beginners" touches upon this work, but mostly cultural details, and you require earlier guidance as to the way to go to work in preparing the soil for the roots. The soil must be in a proper state to receive the plants, as this is most important, and is often the stumbling-block. We are aware that the culture of this vegetable is regarded as costly, but it is not, as we see how well the plants grow in fields or market gardens with only ordinary culture, but the plant is not crowded as it often is in private gardens, and here is the secret of success—ample food and room to develop. It stands to reason that a plant with the root's growths also crowded so badly that it must be weakly, cannot produce strong crowns. Of course, as regards room one must not go to extremes, but adopt a middle course. The beds, if possible, should be in the open, freely exposed, and, as regards size, the best results in heavy land are secured from beds slightly raised, but in light soil we prefer them on the level. Take very light land resting on gravel. Here you have a poor soil that must be enriched with heavy clay. Again, with a medium soil you have less labour, but it may need plenty of food, deep digging, and what is called ample working before planting. We have seen in amateurs' gardens so much labour put in a new bed that the grower would not for years get any return. Once we saw beds got out 4 feet deep, and filled in with soil brought a long distance. To make light, poor soil better add heavy materials, such as loam, marl, or even clay if in a workable condition. Mark out the spaces and remove at one end, say 3 feet in width of the old soil. If the top is good place this on one side, and then take the lower soil, if very light or sandy, and wheel out and replace with the heavier material, mixing this with the top soil, and trenching or double digging the whole bed as the work proceeds. If more convenient the whole of the top portion of the bed may be taken out, then the poor or inert soil, and the new wheeled in. Trench the bed through from end to end, as so much depends upon the grower's labour. If small we prefer doing it in sections. When the weather is bad the soil is not trampled upon so much. Beds made before the end of the year will settle down and be in good condition to sow or plant in April; the soil is sweetened and pulverised by the weather. It is well to turn it up rough now at the making, but if for seed sowing some of the finest soil must be reserved for the surface. Deep culture in any soil is essential, but in land in good condition not requiring additions other than manure there is less need of trenching. What is termed "double digging" will suffice—that is, taking a good width, say 2 feet to 3 feet, out two spades deep at one end of the bed. Wheel this to the other or finishing end, and this will be handy to fill in at the finish. Then cover the surface with manure and double dig, placing the manure between the first and second spit. The top spit goes to the bottom as the work proceeds and the bottom on

the top. The work is very simple providing a good space is secured at the start. We now come to heavy soil. Here the work is the same, but the materials added are different, as such aids as road scrapings, old Cucumber or Marrow beds leaf-soil, or anything that lightens but that is free of fungus. Again, drainage may be necessary, and the bottom of the beds should get a liberal quantity of, say, rough mortar rubble, and dralus laid if necessary. This will not be needed in ordinary gardens. We now come to medium soils, or what may be termed loamy ones. Here deep culture and ample manure that is well decayed will suffice. A good bed is 3 feet. This allows of two rows of plants, and if on the flat allow 2 feet between the plants. Many good growers plant 3 feet apart, and half that distance between the plants. We think 2 feet a good distance, and leave a few inches more between every third row to admit of cutting, cleaning, and feeding. Beds that are raised may be 4 feet or more, with three rows of plants and 2 feet alleys. If seeds are sown there must be severe thinning. It is best to drop a few seeds at the distance named, then thin early, leaving the strongest, and doing the work on two or three occasions, so that at the last it will be seen which plants are taking the lead. We prefer two year old plants, as by doing this there is a great saving of time, but the planting needs care and ample attention as regards moisture in dry seasons. We do not advise salt or saline matter with new beds; this is best later when the plants are stronger.

ERRATA.—The Rev. Francis Horner, M.A., V.M.H., is not Rector of Kirby Lonsdale; his address is Burton-in-Lonsdale, Kirby Lonsdale. In the "Editor's Table" last week, page 338, for "Doctor's" read "Doctors," and for "Ferey" read "Jerez." The description of the interesting group of Gourds and Chrysanthemums shown at the last meeting of the Royal Horticultural Society at the Drill Hall should read: "Shown by G. Ferguson, Esq., The Hollies, Weybridge (gardener, Mr. F. W. Smith)."

CATALOGUES RECEIVED.

Forest and Ornamental Trees, Shrubs, &c.—Messrs. Dicksons, Chester; Little and Ballantyne, Carlisle; Clibrans, Altrincham; Hugh Dickson, Royal Nurseries, Belfast; Herd Brothers, Penrith.

Rockery Plants.—Messrs. Laing and Mather, Kelso, N.B.

Fruit Trees.—Messrs. W. B. Hartland and Sons, 24, Patrick Street, Cork.

Roses.—Mr. Hugh Dickson, Royal Nurseries, Belfast.

Fruit Trees, Roses, &c.—MM. P. C. Nabonnand and Cie., Golfe Juan, France.

TRADE NOTE.

MR. HUGH DICKSON'S CATALOGUES.

THE Rose catalogue and that of shrubs, conifers, fruit tree perennials, &c., issued by Mr. Hugh Dickson are among the

very best we have seen. The illustrations are good, and the type is large, clear, and bold; they are, moreover, tastefully arranged, and printed on art paper throughout. With the Rose catalogue is included a coloured plate of the new Hybrid Perpetual Hugh Dickson, a rich dark crimson.

GARDENING APPOINTMENT.

MR. T. HALL, until recently head gardener at Choriton Park, Malmesbury, has been appointed in a similar capacity to Colonel Baird, Exning House, Newmarket.

OBITUARY.

MR. ABRAHAM NEWELL.

MR. A. NEWELL, for the past twenty-four years head gardener to the late Sir E. Saunders, and recently to Lady Saunders, Fair Lawn, Wimbledon Common, died at his residence, The Gardens, on the 11th inst., at the age of fifty-two years. He was for many years a member of the committee of the National Chrysanthemum Society, frequently exhibiting at its shows. He also took an active part in the management of the Wimbledon Horticultural Society, being also a constant exhibitor also at Richmond, Putney, and elsewhere.

Born in Norfolk, Mr. Newell as a lad showed a taste for gardening, and when eighteen years of age he exhibited a model garden at the exhibition of the Stow Horticultural Society. This so pleased Lady Hare that he was taken into the gardens at Stow Hall and placed under Mr. Orr, who was the head gardener. In five and a half years he had risen to the position of foreman. He then came to Fair Lawn to take charge of the gardens there. Fair Lawn became the property of the late Sir E. Saunders in 1851. It was laid out according to a plan furnished by the late Mr. Robert Marnock, and after Mr. Newell became head gardener there many finishing touches have been supplied. Mr. Newell was a good all-round gardener. He grew Begonias, Chinese Primroses, plants

for winter and summer decoration, Melons, Cucumbers, &c., and he always kept the place in admirable condition, taking particular pride in the grass lawn, which was one of the glories at Fair Lawn. Mr. Newell leaves a widow and an only son. He was laid to rest in Putney Vale Cemetery on the 16th inst.—R. D.

* * The Yearly Subscription to THE GARDEN is: *Home*, 15s.; *Foreign*, 17s. 6d.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the EDITOR OF THE GARDEN, accompanied by name and address of the sender.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

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THE GARDEN

No. 1671.—VOL. LXIV.]

[NOVEMBER 28, 1903.]

HOLLY.

ONCE more in these early winter days the Holly is reminding us, by its stately living presence amidst leafless boughs, that it is still the same "incomparable" as it was in Evelyn's day. Those who are thinking of any new planting of trees and shrubs in garden, coppice, or hedge might do well to think over its good qualities before going further a-field for a choice. In this trying age we cannot wait for anything that seems to loiter, and perhaps it is partly for this reason that Holly is not planted as it used to be. But partly, also, it may be that our minds are led astray by the innumerable foreign trees and shrubs which are now within our reach and clamour for space in such planting ground as may have fallen to our lot. It is not now the same easy task to us as to our forefathers to decide what will be the most in concord with the position it has to fill. One of the first canons to be considered in planting is congruity, and that not only for the present, but in the future; yet in every-day practice this principle is constantly set aside. But, in making choice of this fine native tree, we can hardly go wrong, so long as we can afford it room enough for free development. Like any another common thing, as old as the hills in Nature, it will often give us a glad surprise as we notice some feature, unsuspected hitherto, which comes upon us suddenly with all the force of a new sensation. Most evergreens have a tinge of melancholy about them; but there is a certain quality of sturdy cheerfulness in Holly which makes it especially dear to the English heart. Plant it where you will, it makes the best of such opportunities as are vouchsafed to it. There is a lovely stretch of woodland known as Cranborne Chase, which reaches from the high Dorset Downs till it merges itself in the New Forest. The plantations, fringed with Hazel coppices, can boast of no alluvial richness. A thin crust of earth lies spread over pure chalk, yet in this dry, hungry soil, which is certainly not over-favourable for the development of height or girth in ordinary forest trees, the Hollies rear their grey trunks above the tall nut bushes, and lend beauty to the landscape, far and near, which would be sadly marred without them. Except in water-logged land, they will thrive, therefore, in any soil or aspect, though they return grateful thanks in kind for good, deep, sandy loam and an average supply of moisture.

As a specimen, on a wide lawn, with branches feathering down to the ground, few things can exceed the fine symmetry of the finest green-leaved Hollies, though amongst the host of garden varieties which have been raised, many of them most beautiful in their variegation, there is abundance of choice to satisfy the most exacting taste. We all love the glowing berries which help to light up the winter day, but the creamy foam of Holly flowers in spring scarcely ever receives its due measure of praise.

Take it, year in year out, few trees, home or foreign, keep their beauty at all times like our common Holly; and not only can it be used as a single specimen or in a well-placed group in an ordered pleasaunce, it is quite as invaluable in the home copse, filling spaces under larger trees where nothing else will flourish, and giving just that invigorating touch of warmth and brightness to the woodside by the glint of its polished leaves, which is the prerogative of no other British evergreen. Nothing again in the way of an impenetrable fence can beat a well-grown Holly hedge. Its slowness of growth is its one drawback, but the length of time it takes may be unduly exaggerated. A double row of strong nursery plants from 3 feet to 4 feet high, set fairly close together and well mulched over the roots as soon as planted with a thick layer of old farmyard manure, will make wonderfully good progress in three seasons, and after that, will increase yearly at a rate of 6 inches to 18 inches in height according to the rainfall. They should never be touched, however, with a pruning-knife during the earlier years after planting, as it hinders their full development. Later on it is a matter of taste and judgment how much clipping and trimming will be appropriate. In some positions close shearing is indispensable, and nothing stands such drastic treatment better; but a Holly hedge well planted and left to grow as it will is very fine, and often more in keeping with its surroundings than one that is shorn, and may save a good deal of labour.

Last season every Holly twig bore its coronal of scarlet. Not so this year. Storm and stress strewed the ground with young green berries before they were fully formed. Here and there, in garden or in hedgerow, a solitary tree—one knows not why this one more than its fellows—stands glowing with an ample crop of clustered fruit.

Its varieties are many, and we hope to point them out shortly in a description of the famous Handsworth nurseries.

KEW NOTES.

INTERESTING PLANTS IN FLOWER.

Temperate House.

ACACIA LINEARIS, *Barcosma lanceolata*, *Cestrum aurantiacum*, *Cytisus filipes*, *Dahlia imperialis*, *Dermatobotrys Saundersiae*, *Felicia reflexa*, *Gnidia carinata*, *Grevillea Banksii*, *G. thelemanniana*, *Olearia ramulosa*, and *Tacsonia Van Volxemi*.

Palm House.

Dizygotheca Nilssonii, *Heritiera macrophylla*, and *Sterculia mexicana*.

Succulent House.

Agave dasyliroides, *A. Sartorii*, *Bowarea edulis*, *Bougainvillea spectabilis* var. *lateritia*, *Bryophyllum orenatum*, *Crassula falcata*, *Epiphyllum truncatum*, *Furcraea longæva*, and *F. Selloa*.

Orchid Houses.

Angræcum pellucidum, *Ansellia nilotica*, *Bifrenaria Charlesworthii*, *Bulbophyllum cupreum*, *Calanthe Veitchii*, *C. vestita* varieties, *Cattleya bowringiana*, *Celoglyne fuliginosa*, *C. massangeana*, *Cymbidium giganteum*, *C. traceyanum*, *Cynorchis purpurascens*, *Cypripedium carnosianum*, *C. fitchianum*, *C. insignis*, and others, *Dendrobium Phalaenopsis*, *Epidendrum Endresii*, *E. verrucosum*, *E. Wallisii*, *Lælia autumnalis*, *L. crispata*, *Lanicum Berkeleyi*, *Masdevallia Epphippium*, *Miltonia russelliana*, *Neobenthamia gracilis*, *Odontoglossum andersonianum*, *O. gloriosum*, *Oncidium cheiroporum*, *O. macranthum*, *O. varicosum*, *Phaius Chardwarensis*, *Platyclinis cobbiana*, *Pleurothallis longissima*, *Sarcanthus secundus*, *Spathoglottis hardingiana*, and *Stelis tristyla*.

T Range.

Aphelandra tetragona, *Barleria flava*, *Begonia* (various winter-flowering), *Billbergia Leopoldii*, *Caraguata devansayanana*, *Clerodendron splendens*, *Cyphia tortilis*, *Eranthemum albidiflorum*, *Erica grandinosa*, *E. melanthera*, *Globba atrosanguinea*, *Hippeastrum aulicum*, *Ipomoea ternata*, *Ixora salicifolia*, *Jacobinia chrysostephana*, *J. ghiesbreghtiana*, *Lindenbergia grandiflora*, *Nerine pudica*, *Ornithogalum Eckloni*, *Pentas carnea*, *Plumbago roses*, *Solanum seaforthianum*, and *Sonerillas* in variety.

Greenhouse.

Bouvardias in variety, *Browallia demissa*, *Chironia linoides*, *Chrysanthemum Broussoneti*, *C. Etoile d'Or*, *Chrysanthemum* (collection of garden varieties), *Erica hyemalis* and var. *alba*, *E. gracilis*, *Luoulia gratissima*, *Peristrophe speciosa*, *Salvia splendens*, and other things.

Arboretum.

Arbutus Unedo, *Colletia cruciata*, *Erica mediterranea* var. *hybrida*, and *Jasminum nudiflorum*.

FLOWERING OF THE GLASTONBURY THORN.

THIS remarkable variety of the common Hawthorn, known botanically as *Crataegus monogyna* var. *præcox*, ought, according to the legend, to be in flower about Christmas or New Year's Day. Very frequently it is much later, but this year it is already in full flower, much fuller, indeed, than I have ever seen it before, even three or four months

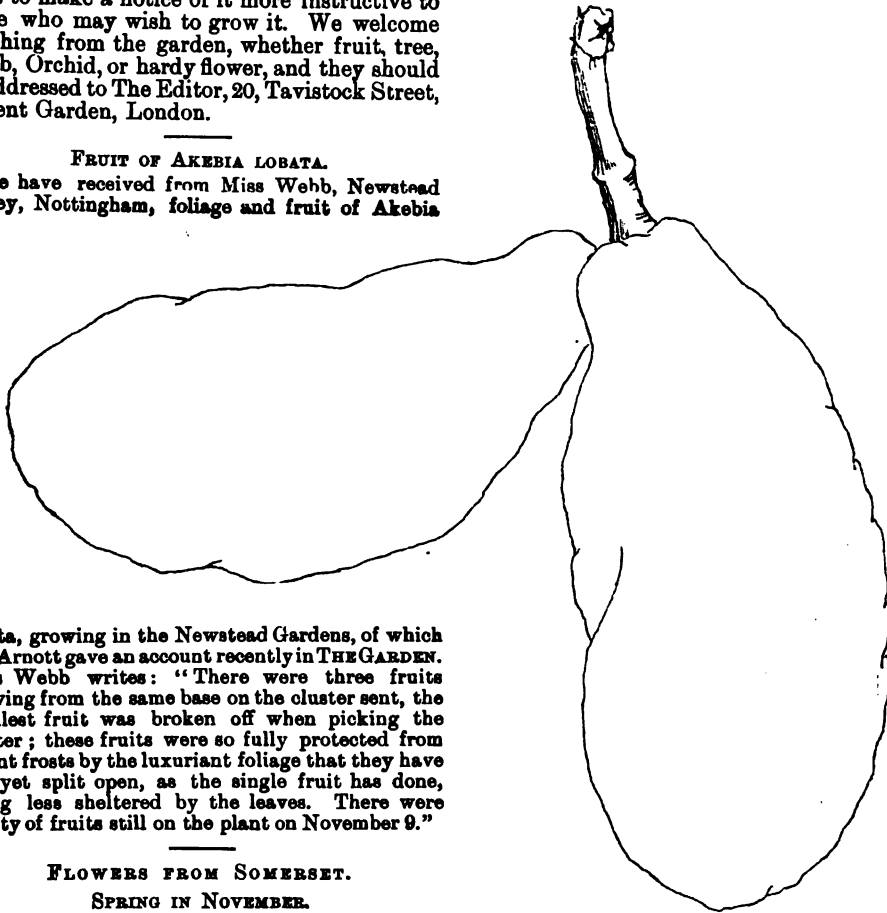
nearer the normal flowering time of the common Hawthorn. In the collection of *Crataegus* at Kew there is an old tree of this variety from which good sprays of fully open flowers might now be cut. They have all the fragrance of the ordinary May, and it is a curious, yet a very pleasing, experience to catch such a typically May and June odour as one passes by it in these dull, short November days. This Glastonbury Thorn is to be had from all the large tree and shrub nurseries, and deserves to be brought to the notice of those who like to grow trees about which a story can be told. B.

THE EDITOR'S TABLE.

We invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London.

FRUIT OF *AKEBIA LOBATA*.

We have received from Miss Webb, Newstead Abbey, Nottingham, foliage and fruit of *Akebia*



lobata, growing in the Newstead Gardens, of which Mr. Arnott gave an account recently in *THE GARDEN*. Miss Webb writes: "There were three fruits growing from the same base on the cluster sent, the smallest fruit was broken off when picking the cluster; these fruits were so fully protected from recent frosts by the luxuriant foliage that they have not yet split open, as the single fruit has done, being less sheltered by the leaves. There were plenty of fruits still on the plant on November 9."

FLOWERS FROM SOMERSET. SPRING IN NOVEMBER.

Mr. Crook, of The Gardens, Forde Abbey, Chard, sends a welcome gathering of flowers that rightfully belong to spring. There were *Polyanthuses* of beautiful colouring, *Phlox* flowers which had been in water for three weeks in a sitting-room and were still fresh, *Roses*, *Pentstemons*, and other things. The following note accompanied the flowers: "I am sending flowers from the open garden, except the *Gloriosa superba*, which is now in full bloom and growing under a glass roof. We find this more valuable now than in summer. *Salvia Pitcheri* was gathered from plants in a sheltered nook, which have been in the open entirely for four years; these are 4 feet high, and do well every year. *Rose Etoile de Lyon* is from a plant trained at the end of a vinery facing west, where it thrives amazingly. *Pentstemons* are from a border of plants from seed sown early in spring, and have bloomed continuously since July in an exposed position; the *Liquidamber* leaves are fine in colour now. The *Polyanthuses* are from open borders, showing that a hot summer is not the

cause of this early blooming. Recently I saw a handful of the common *Primrose* blooms gathered from the hedgerow."

CATTLEYA LABIATA AUTUMNALIS.

Mr. H. J. Clayton, Grimston Gardens, Tadcaster, sends a few flowers of this beautiful *Cattleya* with the following notes; the flowers represented exceptionally fine varieties: "I am forwarding for your inspection a few flowers of the above-named *Cattleya*; they are the produce of a portion of a batch of plants sent to my employer, Mrs. Thomas Fielden, by a gentleman friend from South America nearly seventeen months ago. Amongst the very numerous importations and introductions of exotic plants during the past, say, twenty years, I do not think any one of them equals the plant in question for general beauty and interest. As is well known its flowering period is at the duldest time of the year in this country, viz., from late October to December. In saying this I am not forgetting

injurious insects or their larvæ that might have come with them. Before they were quite dry we again dipped each plant in clean rain water, laying them back on the Vine border, a boy sponging over each plant afterwards. In a short time most of them began to show signs of new life, either by the plumping up of the dormant eyes or the swelling out of what were to be new roots from their bases. We then had a quantity of clean pots and crocks prepared to put them into. The rooting medium was made up of one-third half dry Oak leaves rubbed through an inch riddle, one-third of tough fibry peat with the dusty part taken out, and one-third good sphagnum moss. The whole was well mixed up together and made sufficiently moist so that it could be made firm round the plants when potting. As a few of the plants seemed to lend themselves to being fixed upright we had a few pieces of Elder wood cut up into lengths varying from 15 inches to 18 inches, and of the thickness of an average man's wrist. These were put into the empty pots and then packed round their bases with clean crocks up to half the pot's depth; a thin layer of moss was wired to the upper portion that stood above the surface of the pot. We then inserted the lower end of the plant in them, packing the material firmly around and attaching the upper parts to the block with a bit of very thin copper wire. In each case they have done well, new roots having struck out freely in the moss around the blocks. Why we like Elder wood is that its bark is of a soft absorbent character, and from the acrid nature of its growth is less attacked by insects than any other hard-wooded native plant I know of. The remainder were then potted up in the ordinary way, being careful to use pots as small as consistent with the size of each plant. We filled each pot fully half its depth with clean crocks broken up according to the size of the pot, over this was placed a well-firmed layer of the potting material sufficiently high so that the rhizomes of the plant were just above the surface of the pot, again making the material as firm as possible round them. A small stake was put to each to steady them until rooted. The whole were then put into a house with a night temperature of about 60°, with a rise of from 8° to 10° in the day time. Very little water was given until the young roots were ready to absorb it, though a slight dewing over with a fine syringe was given on the evenings of days when the sun had shone. The wooden stall on which the plants stood was kept fairly moist all along. With the lengthening days nearly every plant made new growths and roots, when, of course, more moisture was given both to the roots and in the atmosphere, though we were careful not to make the material they were in too wet at any time. During the summer months some shade was given during periods of bright sunshine.

GEUM MACROPHYLLUM.

Mr. G. B. Mallett writes: "I enclose you a few flowers of *Geum macrophyllum*, a plant that generally flowers twice a year, once in summer, and then they are borne on long, much-branched stems 2 feet long, and again in winter when the stems are simple and bear but three flowers each. I referred to this *Geum* under the name 'triflorum' in *THE GARDEN* a year or two ago, and then drew attention to its usefulness as a rockery plant during winter. It is now flowering very freely, many plants having ten or a dozen spikes. The petals are a soft shade of yellow, with a shade of green, and they expand fully during sunshine and are then 1 inch across. It grows anywhere, and its winter-flowering character renders it more than ordinarily interesting and useful as a garden plant. I have seen them with crimson calyces in warmer seasons."

CATTLEYA AND *ODONTOGLOSSUM CRISPUM*.

Mr. D. M. Grimsdale, Kent Lodge, Uxbridge, sends superb *Cattleya* flowers and a spike of *Odontoglossum* with fifteen blooms, with the following note: "The *Odontoglossum* plant flowered early in the year with two spikes, nearly or quite as good as the enclosed." We have seldom seen stronger growth.

FRUIT OF *AKEBIA LOBATA*. (Natural size.)
(Colour pale purple.)

what is termed the queen of late autumn flowers, the *Chrysanthemum*, though one cannot compare the two. Believing as I do that many possessors of a stove are often deterred from trying the culture of some Orchids in the belief that their culture is somewhat difficult, I am adding a few notes of how we treated the plants from which the flowers sent were cut. As soon as the case in which they were packed came to hand we took them out and laid them on the soil of a vinery floor in which ripe Grapes were hanging. We covered them with mats to break the light for about a fortnight. We then went through them one by one and cut away all the old dried pseudo-bulbs and damaged ones. When this was done we dipped each plant separately in a mixture of soft water and XL All Insecticide, according to the instructions printed on each bottle. This was done with a view of destroying any

CHRYSANTHEMUMS.

SOME CONTINENTAL NOVELTIES.

ALTHOUGH we have now a much larger number of raisers of new Chrysanthemums abroad than we used to have in days gone by, yet owing to home and Colonial competition very few novelties beyond Calvat's are introduced into our collections. During the past season I have had ample opportunities of seeing all that is newest and best in novelties for 1903. Both at home and abroad certain varieties, and especially those raised by M. Calvat, seem to be invariably good, whether grown at home or in France. This is not always the case, for we know by past experience that many good kinds grown in England do not do well in America, and *vice versa*. Looking over my notes I find the following are specially marked as promising varieties for show purposes:

Henri Second.—A very deeply-built globular Japanese incurved, pointed florets, colour crimson with gold reverse.

M. H. Martignier.—Very large Japanese, with long drooping florets, forming a closely reflexing flower of deep build; colour rich golden-yellow, shaded pale chestnut.

Etienne Bonnefond.—Incurved Japanese, with deeply-grooved florets, a massive globular-shaped flower; colour deep golden-yellow, tinted purple.

Mme. Chevrant.—Although seen last year, this charming Japanese is everywhere in splendid form this season. It is a large spreading variety, and of a peculiarly soft rosy lilac shade.

Mme. Alb. Bertrand.—A Japanese of immense build, very deep, florets of great length; colour pale lilac-mauve, passing to white.

Mme. Henri Douillet.—Another fine Japanese variety of incurving form, with very broad florets, close and compact in build; colour fine bright shade of rosy amaranth, with reverse of silver.

Lohengrin.—This variety has long drooping florets, which give the blooms the appearance of great depth. The colour is a fine pure shade of orange-yellow, tinted reddish chestnut.

Mme. Marthe Morel.—This is also one of the most substantial in size, and well maintains its raiser's reputation. It is in form a Japanese, finely incurved, and very close and compact in form; colour pale straw-yellow.

Jean Calvat.—Remarkable wherever shown for its size and solidity. The florets are of medium width, pointed at the tips, and reflexing; colour rich golden-yellow, tinted chestnut.

Souvenir de Calvat père.—Japanese, with rather broad petals, and of good length. A very promising flower, rosy white, tinted yellow.

Lieutenant-Colonel Ducroiset.—This is one of the finest and most effective of the season. A Japanese, with florets of immense length intermingling and twisted. The colour is a rich silky shade of dark golden-yellow. C. H. P.

The New Garden at Wisley.

Fellows who are naturally desirous of seeing the new garden, which Sir Thomas Hanbury has so generously offered in trust for the society's use, are reminded by the secretary that they must be content to wait till the spring; for at present none of the society's officers are there, and everything is in a transition state. It is hoped to be able to open the garden to the Fellows in March, but due notice will be given.

Resurrection plants.—Three different plants are known under the above name. The illustration represents *Mesembryanthemum tripolium*, which is one of the most remarkable. When dry the seed capsules are tightly closed up as in figure 1, and when soaked in water the capsules will open out their curious valves as shown in figure 2. On being dried they will close, but will open again with moisture. This may be repeated several times without destroying



MESEMBRYANTHEMUM TRIPOLIUM.

(1) Closed. (2) Open.

the remarkable hygroscopic properties. The seed vessels or capsules of many other plants possess the same properties, and it is chiefly those which grow in countries or districts where they have long, dry seasons. The seeds, which ripen during the early part of the dry season, remain on the ground for a considerable time, and are protected by the folding up of the capsules. When the rain comes these coverings open and allow the seeds to escape during the time the ground is moist suited for their germination. In addition to the species named above, there are several other *Mesembryanthemum* which possess the same properties. *Anastatica hieracuntica* is another known as the Resurrection plant. It is a curious little annual belonging to the cruciferae. It is the only species belonging to the genus, and is widely disbursed over the Mediterranean regions from Syria to Algeria. The short stem is branched, the branches spreading, and the flowers are produced on these. When the seeds ripen the branches close up and all the leaves fall off, and later on the stem dries

off at the base, and the little ball-like heads of seeds are dispersed by the wind, sometimes being blown into the sea. When this happens the branches unbend, the seed capsules split, and the seeds may be cast on shore to germinate. When rain comes on land the seeds are released in the same way to germinate while the ground is moist. This plant also possesses the hygroscopic properties, that is, the branches will open when wet and close again, to reopen again as frequently as they are exposed to the change. In addition to being called the Resurrection plant it is also known as the Rose of Jericho, and in Palestine it is known as Kaf. Maryan or Mary's Flower, there being a tradition that it expanded at the birth of Christ. The third known as the Resurrection plant is *Selaginella lepidophylla*, a club Moss, which, after being dried up, will again assume its natural appearance. On this account it is often sold as a vegetable curiosity. —A. HEMSLEY.

Rhododendron Mrs. Harry Ingersoll.—This is one of the newer varieties of that large group of hardy evergreen *Rhododendrons* which the great Loudon some three-quarters of a century ago described as "the pride of European gardens." Mrs. Harry Ingersoll belongs to the increasing group which has large white centres with distinct marginal edgings of some bright colour. In this case it is of a bright rosy magenta, with a yellow centre, distinct, and very fine. A glorious subject for conservatory decoration. It is bound to find its way into the choicest collections.

Two Pinks for blooming in pots.—One of these is Mrs. Lakin, a dwarf, compact-growing white variety, which grows and blooms freely. The flowers are white, borne on short, stiff stems, and there is no bursting of the calyx. It is admirably adapted for pot culture. The other is Samuel Barlow, an improved form of the old pheasant-eyed Pink, also of dwarf, compact, free growth, and, like Mrs. Lakin, producing its full handsome frimbriated flowers on stiff foot-stalks, and it only partially splits its calyx. I bloomed a plant of this in a pot last spring, and was much pleased with its freedom and full handsome flowers. Plants of these might be potted up at once, giving them a rich sandy soil. They can be kept in a cold frame until the middle of January, when they may have the light and warmth of a greenhouse, and will bloom finely if the plants receive due attention.—R. D.

English and Dutch bulb farms.—Under the auspices of the Kidderminster and District Horticultural Society, Mr. J. Duncan Pearson of Nottingham, a member of the Royal Horticultural Society's Daffodil committee, delivered an interesting lecture on Thursday evening, the 19th inst., at the Masonic Hall on "Dutch Bulb Farms and a Peep at some English ones." The address was illustrated by a number of lantern views, thrown on the screen by Mr. R. E. Grove. Sir Sydney Lea, Bart., presided over a large company which quite filled the hall.

Honesty.—A correspondent refers to the beauty of *Honesty* in the winter as furnished by the flowers. That is, of course, an error. The real beauty of the *Honesty* in winter is in the inner or dividing thin silky-like filament, which is retained when the two outer seed-scales of each seed-vessel are carefully removed. The seed-stems should not be cut until they are quite ripe, then be tied carefully into small bundles and be hung up for a time in a dry place. Later a gentle tapping with a stick liberates the seeds and scales, but sometimes the filaments are broken. It is, therefore, best to take each bundle, untie them, then remove the scales and seed by pressing between the finger and thumb. That is the way to have these sprays of silvery filament in full beauty. Where it is possible to obtain seed of the white-flowered variety, grow that for this purpose as preferable; also do not in a slovenly way trust to self sowings, but save seed each year. Sow it in a bed thinly outdoors in May, transplanting in the autumn. Then strong flowering plants are easily had.—A. D.

Is the Capsicum a berried plant? This question arose at a recent provincial Chrysanthemum show. There was a class for berried

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

December 8. — National Chrysanthemum Society's Exhibition, Crystal Palace (three days); Leeds Chrysanthemum Show (three days).

December 10.—National Rose Society's Annual Meeting at 3 p.m. and Dinner at 6 p.m., Hotel Windsor.

December 15.—Royal Horticultural Society's Meeting, Drill Hall, Westminster; Horticultural Club usual Monthly Dinner; Discussion opened by Mr. George Bunyard.

The new Hall in Vincent Square.—The new Hall is rising fast from its foundations, and it is hoped that it may be ready for use in June of next year. Vincent Square lies just behind the new Roman Catholic Cathedral recently built in Victoria Street, Westminster, and is only five minutes' walk from the present Drill Hall used for the society's meetings.

plants, and among them some Capsicums were staged, the others being the improved forms of *Solanum capsicastrum*. As one of the judges I was in favour of admitting them as berried plants, but my view was opposed on the ground that they were not berried plants. The Capsicums were ruled out of the competition, but I thought it a mistake. For what is a berry? Simply a fleshy fruit containing seeds. It seemed to be assumed that a berry must of necessity be somewhat spherical in shape, but berries vary greatly in size and shape. There are some varieties of Capsicums whose fruits are small and round, like our popular notion of a berry. I think, therefore, that any plant cultivated in a pot (the class being included among those requiring the subjects to be in pots) that produces a fleshy fruit of the nature of a Capsicum, and *Solanum capsicastrum* is admissible, why not any *Solanum*? It is quite certain that berried plants, including various forms of the Capsicum and allied subjects, would be much more attractive than the round-berried hybrid *Solanums*, as they are termed, especially when they possess the common fault of hiding their fruit amid their foliage. What do others think?—R. DEAN.

The Hurst and Son Musical Society.—A most successful ladies' evening concert was given by this society on the 18th inst. in the Throne Room, Holborn Restaurant. It is a society formed of those in the employ of Messrs. Hurst and Son of Houndsditch, and the conductor is one of the partners—Mr. E. Sherwood, son of the president, Mr. N. N. Sherwood. The programme was an excellent one, and the orchestra played with refinement several selections from famous works. "Elgar's Pomp and Circumstance" was delightfully rendered, and "Berceuse," by Mr. E. Sherwood, was full of beautiful passages. The soloists, we believe, were for the most part professionals, but the orchestra was excellent. We know nothing more likely to encourage a sense of honour and good feeling among men in business than such societies as this, and we congratulate Mr. Sherwood heartily on his successful leadership. A donation was given to the Gardeners' Royal Benevolent Institution, of which Mr. H. J. Veitch, the treasurer, gave a brief account, urging its great claims on the charitable. Mr. F. A. Washington is the hon. secretary of the musical society.

Sutton's Every Day Cucumber.—Those who require Cucumbers all the year round will not be disappointed if they grow this variety. It is excellent for the winter, and though the fruits are large, we usually cut them when about 12 inches long, and by so doing there is less strain upon the plants. Under any conditions winter Cucumbers are not of easy culture, but much depends upon the variety. Every Day has an excellent constitution. The growths made now are short-jointed, the foliage of good substance, and when this is the case there is no lack of fruit; indeed, too many, as thinning must be resorted to. It is surprising in gardens how many grow a certain variety for years without a change, and by so doing get splendid crops. For early spring or late autumn and winter supplies I prefer a medium grower such as Every Day. Even at this season the fruits are handsome. They are almost smooth, and have scarcely any neck, being deep green in colour, and, what is most important, the quality is excellent, and the fruits keep for some time if placed in a cool place and the stalk ends in water.—G. W.

Chrysanthemum Bronze Soleil d'Octobre.—The note "E. J." respecting this variety in THE GARDEN of the 14th inst. was specially interesting to me, as I had recently visited the market garden in which the plant had sported, and in which the sport was fixed. From the first time the sport came into notice I felt it was altogether a misnomer to give it the descriptive name of Bronze Soleil d'Octobre. On the occasion of my visit to the nursery of Messrs. G. Prickett and Sons, at Enfield Highway, there were in full blossom some 4,000 plants of the yellow Soleil d'Octobre, and 5,000 of the so-called Bronze Soleil d'Octobre. The plants were not lifted from the open as were those to which "E. J." refers,

but they were all growing in pots, and had been all through the summer. The plants sufficed to fill several houses, and the contrast was most striking. First a house of the yellow flowers of the parent variety was met with, and this was succeeded by a similar house filled with the so-called bronze sport. The contrast was so striking that one colour enhanced the value of the other. I can only imagine that "E. J." has not become possessed of the true stock of this really pretty sport, as I know he is too good a grower to fail in the cultivation of the plant. During October and early November the florists' windows throughout London are frequently full of the two sorts side by side, and in so doing add attractiveness to their exhibitions.—D. B. CRANE.

Professor C. S. Sargent, who is making a tour round the world on behalf of the Arnold Arboretum, was last heard from at Moscow. It is expected he will return by way of Hongkong, East Indies, and San Francisco, arriving probably in December.

The spread of Black Currant bud mite.—This terrible pest continues to spread, no remedy is forthcoming, and in the fruit-growing districts of Kent hundreds of bushes have this season again been consigned to the flames. The growers now who have absolutely clean stocks are the exception rather than the rule, and at the rate in which the pest is spreading it almost seems as though the commercial culture of Black Currants is to be a thing of the past. It is no exaggeration to say that the failure of Black Currants through the bud mite pest is one of the greatest calamities that have fallen on market fruit growers, and naturally they are reluctant to give up a crop the fruit of which realised this season as much as 25s. a bushel in the wholesale market. If any individual could introduce an effective and practical remedy he would win the lasting gratitude of the fruit-growing community.—H.

Chrysanthemum Lady Cranston. This new Chrysanthemum, which was awarded the medal for the best new Chrysanthemum not in commerce and a special award of merit at the show of the Scottish Horticultural Association on the 19th, 20th, and 21st inst., promises to be of special excellence. No one who saw the fine bloom staged by the fortunate raiser, Mr. R. W. E. Murray, Blackford House, Edinburgh, will be disposed to dispute the high opinion formed of it by such an acute and experienced judge as Mr. E. Molyneux. It is a sport from Mrs. Barkley, and has good size and substance, with broad drooping petals of a charming blush colour. I believe that several offers were made for it, but that the stock was purchased by Mr. W. J. Godfrey of Exmouth for £40. Mr. Murray, who is one of the most devoted amateur gardeners in or about Edinburgh, has been very fortunate in securing such a fine sport. The flower is named in honour of the wife of the Right Hon. Lord Provost Sir Robert Cranston, who opened the show.—S. A.

Winter foliage for decorations.—The demand for all descriptions of foliage material that can be used for domestic or similar form of winter decoration is great, and the energies of growers in many directions are devoted to supplying what the public need. Amongst other things so utilised are young branches of American Oaks. These are of a fine rich colour, and if cut just as the colouring is at its best it holds on to the wood for some time. The method of culture seems to be that which Mr. E. Beckett adopts at Aldenham House, with such good effect with Willows, Dogwoods, Sumachs, and similar things. They are planted rather close, then cut hard down each winter when the growths are some 3 feet to 4 feet in height and carrying rich leafage. The soil should have been originally well prepared and manured, and after growth has become strong a top-dressing of short manure should be given to the stocks each year. Great quantities of this material are grown for market. It would well repay any gardener to plant up and treat several things in this way for decoration.—A. D.

The ravages of the Celery fly.—This season Celery plants have been badly attacked by the leaf miner, or Celery fly, and though every

precaution was taken in the early stages of the attack it was impossible to arrest its progress, and the plants are in many gardens worthless. In my own case the white varieties of Celery are worse than the red, and the earlier sorts have suffered most severely; indeed, in many instances they are mere leaf-stalks without a vestige of green leaf. It would be interesting if readers of THE GARDEN would offer any advice as to the destruction of the pest other than by removal of infested foliage. I have tried various insecticides, soot, and other compounds, but they are of little use; they have been in past years, but not so on this occasion, as the pest increased so quickly. Doubtless the attack is owing to the low temperature and superabundant moisture. So far this season we have tried all well-known remedies, even using quicklime, but unless the leaf was killed the fly was not injured in the least, or it reappears upon the younger growths the next day.—G. W. S.

Apple Lane's Prince Albert in 1903.—It was most interesting to read the notes from Berkhamsted on page 322, and certainly Messrs. Lane have reason to be proud of their introduction. My note, however, more concerns the crop this season. With us it was one out of about half a dozen that cropped at all, and this proves its value more than ever. Doubtless in a great measure its cropping qualities are due to its late blossoming. It is one of the latest in this respect, and if the fruits are left on the trees as late as possible there is no difficulty in keeping them sound well into the spring. As an amateur Apple I know none better, and those who cannot grow many sorts will not find the above tail them, and in addition it does so well grown as a dwarf or standard. It crops very freely in a young state, which some of our best kinds do not, such as the Blenheim and others. When kept Prince Albert is not a bad dessert Apple, and grown on bush trees on the Paradise stock it produces large fruits.—G. WYTHES.

Chrysanthemums at Finsbury Park.—The display of Chrysanthemums at the well-known North London public resort is one of exceptional quality, and we never remember seeing the collection, as a whole, in better condition. No less than 4,000 plants in about 200 varieties are grown here, and on the occasion of our visit the blooms were at their best. Unlike many other public displays, the Finsbury collection is of a most representative character. The plants are not confined simply to Japanese and incurved sorts, but there are large-flowered Anemones, Japanese Anemones, reflexed, Pompons, Pompon Anemones, and many charming single-flowered sorts, each type of which adds beauty to the display, and is interesting to the visitor. The plants were grouped in one long undulating bank, arranged with considerable skill and taste, so that the flowers of the different types contrasted pleasingly one with the other, thus making a floral picture long to be remembered. Both new and old sorts were in evidence, and this served to illustrate the great advance that is being made each season. A special word of praise is due for the grand display made by the large-flowered Anemones and Japanese Anemones; they were superb, the blooms in a great many instances being equal to what is usually met with at the leading Chrysanthemum exhibitions. We refer to Deester, Sir Walter Raleigh, Le Chalonais, Mrs. Judge Benedict, M. Chas. Lobocqz, and Miss Margaret, each of which were flowering freely. The single-flowered sorts were extremely pleasing and interesting, good plants, of freely-flowered varieties, being dotted here and there in the group, with a front edging of some of the dwarf sorts, which gave a delightful finish to the arrangement. Ladysmith, a dwarf, rose-pink single, is prodigal in its display, and other interesting plants were Edith Pagram, Ewan Cameron, and Annie Tweed. Numerous plants of decorative Japanese sorts made an excellent background, and the iron supports to the glass structure were also covered by them. The more conspicuous varieties were Lile des Plaisirs, Margot, M. Chas. Hubert, Lady Selborne, James Salter, and Alex. Dufour.—D. B. C.

The National Amateur Gardeners' Association.—The annual dinner will take place at the Holborn Restaurant on Tuesday, December 8. The price of the tickets will be 5s. each, as before. The president of the association will be in the chair, and a musical entertainment will be organised by Mr. W. A. Hobbs. The secretary is Mr. F. Finch, 117, Embleton Road, Lewisham, S.E.

Dundee Horticultural Association.—The monthly meeting of this association, held on the 3rd inst., was a well-attended one, and the lecture was listened to with great appreciation. The lecturer was Mr. James Grieve, of Messrs. James Grieve and Sons, Edinburgh, who gave a most interesting address on "Florists' Flowers." It is a subject upon which few are better qualified to speak, and Mr. Grieve treated it in his usual able and racy manner. He was heartily thanked, and the discussion was very complimentary and valuable.—S.

Cattleyas at the Warren House, Stanmore.—Cattleyas under the care of Mr. J. J. Ellis at this well-known establishment are being remarkably well, and on the occasion of a recent visit a large number of plants were in the pink of condition. A group of *Cattleya labiata* was attractively set up. Many varieties were represented, which gave unmistakable evidence of good culture. Interspersed here and there among the plants of *C. labiata* were those of *C. aurea*. The contrast was distinctly pleasing. Orchids generally are well grown here. Many improvements are being made in the glass houses.—D. B. C.

Saxifraga Fortunei.—One was interested in the recent notes on this Rockfoil by Mr. Irving and Mr. Weaver, and a few more notes of comparative experience may be of value. By covering overhead with a sheet of glass I have kept *S. Fortunei* on the open rockery for a number of years, but I should not consider it a truly hardy plant in ordinary winters without protection. Like many other things, much rain in winter and heavy frosts are very injurious to it.—S. ARNOTT, *Larsethorn, by Dumfries, N.B.*

Trials at Wisley, 1904.—"Cauliflowers, Arrets, half ounce of seed; new Peas (edible), half pint of each; new Potatoes, twenty tubers of each; new Cactus and Pompon Dahlias, two plants of each; Tea and Hybrid Tea Roses, two plants of each; Violas, six plants of each. All the above (except Roses) should be sent before March 1, 1904, by parcel post, addressed: Superintendent, Royal Horticultural Society's Gardens, Wisley, Ripley, Surrey. Anyone willing to send Roses should write beforehand for instructions as to how best to send them." We take this from the society's Journal just published. No time has been lost in beginning the valuable trials in the new garden. There can be no complaints now of suburban disadvantages.

Notes from a Queensland garden.—In August the most striking feature of this tropical garden was a brilliant Bougainvillea climbing up a high fence, and next to it a great many blooms of the sky blue *Ipomoea cerulea*, which seeds itself here. *Bignonia venusta* is loaded with its clusters of orange bells. A bush of the Brazilian Cherry (*Eugenia uniflora*) scents the whole garden in the evenings, and reminds one of other *Eugenias* that thrive so well in Cornwall. A large clump of fine Frangipanni trees (*Plumeria*) ought to be in full flower by October. The India-rubber Vine (*Cryptostegia grandiflora*) is certainly, if a good servant, a bad master. Brought up from the Botanical Gardens at Brisbane sixteen years ago, it has survived the worst drought ever known out here, and thrives in the eye of the wind in a high spot swept by sea breezes. The blue Pea (*Clitoria Ternatea*) also has come to stay, and has to be perpetually kept in check. Three claret-coloured flowering Allamandas make a pleasing contrast to the yellow Tecoma which grows as a hedge round the garden. Lagerstromia indica is just coming into bloom, some 10 feet high, and are well-grown bushes. Quisqualis indica divides another high fence with a rampant Bougainvillea covered with violet flowers. An Antigonon has thrown up five or six shoots, but has a struggle for existence. Dombeya

Mastersii is the most successful shrub in this garden; its heads of white flowers are rather like Viburnum plicatum, but the leaf shows distinctly the mallow order, and the perfume of the bloom is very strong. The yellow-flowering Allamanda has just opened its flower-buds, and so has Bignonia tweediana on the fence. A Plumbago is doing badly; Bignonia tweediana spreads itself quickly. The Bauhinias lasted a very short time in bloom. Hoya australis, Ipomoea palmata, and Passiflora Banksii are particularly bright in the scrub near here, while Libertia paniculata thrives in the rocky ground. The Li-Li tree Orchid (*Dendrobium canaliculatum*) is abundant just now, and the flowers are very fragrant. Our one Bamboo (*Bambusa vulgaris* it is supposed to be) has grown well; a cane cut down and measured for me was 75 feet long. The scarlet Pomegranates make a very bright spot in the garden.—C. R.

Persian Cyclamens at the Warren House, Stanmore.—Rarely have these winter-flowering plants been seen in such good condition as they are here. They are exceptionally fine, and bear in profusion large and handsome flowers of good substance, and each one is borne on a stout, erect footstalk. The plants are freely used for decorations, and the flowers are in constant demand. There are three or four batches, one now at its best, another large group to succeed this, and still another to follow the last mentioned, and numerous pans of seedlings coming on apace. In this way the display is maintained over a long period.—D. B. C.

Senecio pulcher.—This *Senecio* is one of the finest in colour of all flowering plants in the hardy plant garden in autumn, yet in spite of this it is rarely seen, and then only in single plants, so far as the private garden is concerned. Now and then some hardy plant nursery provides a rich display of it, and whenever or wherever it is seen in quantity in flower the general effect is excellent. There is usually little trouble in flowering the plant in the first year from the specimens sent and from the nurseries, but after this time a certain degree of watchfulness is necessary to keep up a good flowering stock. The best way to ensure this is to increase the species by means of root cuttings. Such cuttings may be inserted during winter, preferably December or January, so that by breaking early into growth the offspring may be potted early, and, given treatment similar to young seedling plants, be fit to plant in the open in May or June ensuing. This rapid progress is only possible where an early start is made. At the same time any plants of fair size bedded out by the end of July would give fine flowering plants for a year later. Flowering at any time depends on a good crown development in the previous year. By raising a few plants periodically in this way it is possible to maintain a regular supply of this unique flower each year.—E. H. J.

Notes from a Yorkshire garden.—December is upon us, and the borders are stripped of their summer glory. They look clean and tidy, and the soil awaits the invigorating and cleansing effects of winter winds and frosts. The Cocosnut is hung in the window for the tits, and within an hour was visited by a blue-tit, as though our feathered friends had been waiting ever since the last was taken down in the spring. Next day the great tit came, and now we have both birds constantly. When the frost comes they will find a second Cocosnut and a string of Brazil Nuts hung horizontally across the window. These latter are considered a greater delicacy by our tit friends than the Cocosnut, and it is very pretty to see the tiny birds swinging on them. We are not favoured with the visits of coal-tits or long-tailed tits here. Taking stock of the successes and failures of the late deplorably wet summer, we have to remember with pleasure a long succession of Roses, with practically no close time, though, of course, with a large quantity of poor blooms and hundreds of sodden buds that never came out. Still, there has been a constant supply for the bowls, the Hybrid Teas still contributing a few small-sized blooms for table decoration. Lilies have been almost a total failure. *L. candidum* supplied not one-tenth of the usual spikes of bloom,

L. testaceum none at all, *L. tigrinum Fortunei* a very poor lot, *L. umbellatum* not up to the average, and the only success was *L. tigrinum splendens*, which has given a fine lot of spikes. This latter is one to be highly recommended as a hardy Lilium. Campanulas, Delphiniums, Geums, Rudbeckias, Gaegas, Anemone japonica, Hollyhocks, Heleniums, Veronicas, and many other herbaceous plants have been very free-blooming. Phloxes have, of course, revelled in the wet season. The rock plants have also been well up to the average in flowering, and have mostly made excellent growth. Bees and butterflies have been comparatively scarce. The Red Admirals, instead of alighting half-a-dozen at once on the Michaelmas Daisies, have been practically strangers to the garden. Tree Pæonies were cut down by late frosts (we had 2° of frost on June 21), and herbaceous Pæonies made only a poor show of bloom, and have entirely failed to give their usually beautiful autumn tints, the foliage having shrivelled up in the grip of the wind and the wet cold days so frequent this year. But, after all, there is always some compensating feature in a garden, and there have been many days when one could enjoy the flowers.—W. JESPER.

New Apple Norfolk Beauty.—To a recent meeting of the Royal Horticultural Society Mr. Allan sent his new Apple, and the fruits staged were splendid examples, especially when the adverse season is taken into account. I did not have an opportunity of asking how this new Apple had cropped this year. Certainly the fruits that were exhibited showed no lack of size or want of colour, and if I mistake not there was also an exhibit on the same date at the large show of the National Chrysanthemum Society at the Crystal Palace, so that it appears to crop well. It should be a valuable addition to our mid-season culinary fruit at this time of year. The variety in question has received the highest awards, and should make a valuable exhibition fruit, both for its size and colour, as it closely resembles the well-known Warner's King. From the appearance of the trees it crops as well in a young state, but, of course, it is full early to note cropping with very small trees. As regards the quality there is no difficulty, it is a splendid cooker and much liked, the large golden fruits taking the eye at once, and its beautiful shape adds to its value. Mr. Allan describes it as a cross between Waltham Abbey and Warner's King, both splendid kitchen Apples, and though with me Waltham Abbey is a shy cropper, this is not so with Warner's King, which is the reverse.—G. WYTHES. [We saw this Apple at Guntton recently; it is a splendid addition to our cooking Apples, and should become popular. It bears freely.—En.]

A note from Terregles, N.B.—The gardens at Terregles, Dumfries, are among the best appointed of their size in the district, and a too hurried run through the glass department was of much interest to a flower lover in the second week of November. Chrysanthemums are extensively grown, but the time of the grower is not monopolised in the cultivation of large blooms alone. Mr. John Mackinnon, Mr. Galbraith's gardener, uses the smaller flowers largely for decorations, and seldom does one come across so many plants of single Chrysanthemums in a private garden. Mary Anderson, Miss Rose, and Amy Holden are the three most largely used, but a number of others are grown as well. Such varieties as La Triomphe (in three varieties), Ryecliff Glory, Sœur Melanie, the old Elaine, and the bright Garnet are found very useful, and are extensively cultivated. For large blooms a number are grown also, and these were generally exceedingly fine. Harry Wender was better than is usually seen. Lady Roberts, Charles Longley, Godfrey's King, Godfrey's Masterpiece, Pride of Exmouth, Nellie Perkins, Eva Kuowles, Mrs. H. Weekes, Nellie Puckett, Guy Hamilton, Lady Hanham, Mrs. J. Lewis, Pride of Madford, Lord Ludlow, N. C. S. Jubilee, and Oceania were all of exceptional quality. There are generally about 1,000 Chrysanthemums of all kinds grown at Terregles. One side of a large house was nearly filled with plants of one of the best strains of *Primula obconica* I

have ever met with. The plants were not yet at their full size, but the range of colour and the form of the flowers left little to be desired. Cyclamens and zonal Pelargoniums were also very fine, and a large number of Chinese Primulas of Sutton's splendid strain were charming in their own way. Forced plants were doing well, such as Lily of the Valley, Paper White Narcissi, and early Roman Hyacinths being very fine. The conservatory was bright with a nice and varied lot of flowering and foliage plants. Of the former a fine Bougainvillea at one end, and Chrysanthemums, Primulas, Salvias, Eupatoriums, and Cytisuses were among the most noteworthy, while Bamboos, Phormiums, Palms, and Dracenas were the leading things among foliage plants. The stove plants are mostly of suitable size for the table, and remarkably clean and healthy. Ferns were very good in the fernery, and Asparagus Sprengeri and others much grown for cutting. Among other things observed was a *Stephanotis* in fruit, not a rare but an uncommon thing to see. A glance at the frames showed an ample supply of other things ready to take into the houses in due course, and everything bore the impress of the good cultivation required in such an establishment as this, where a supply of flowers, &c., is required all the year round.—S. A.

Schizostylis coccinea.—After a year of extreme heat it is not unusual to hear the remark that rare trees and shrubs flower with greater freedom. So far, however, the same lesson does not appear in respect to the rainy season of 1903. That the weather has suited many things there is no doubt, and I consider the above a somewhat notable instance of this. Calling recently at the nursery of Messrs. T. S. Ware, Limited, Feltham, I noted a large bed of the plant with flowers of remarkable colour. At a distance of 100 yards or more the group gave a wonderfully vivid display of crimson-scarlet, and the leafage was not marred at the extremity as is usual. On light and warm soils the brown leaf tips destroy much of the fine colour of the flowers, and, indeed, when the leaves are so marked the flowers rarely, if ever, attain their best colouring. All this would appear to suggest that the plant is moisture-loving, yet possibly the more uniformly cool conditions may have to a large extent assisted in improving the colour generally. It is well known to hardy plant growers that the finest spikes are produced in the more holding soils, and this, doubtless, in some degree, assisted by the long-continued moisture of the year, may chiefly be responsible for the brilliant colour effect I have stated above, one wishing it were as good each year.—E. J.

THE ROSE GARDEN.

ROSES WITH PERSISTENT FOLIAGE.

SOME varieties of Roses, more especially among the Tea-scented and Hybrid Teas, have green leaves even in November, so much so that they are most valuable as decorative shrubs, apart from their floral beauty. Perhaps this is more noticeable among newer varieties and hybrids. For instance, the charming Mme. Antoine Mari is covered now with a wealth of glossy leaves that are quite as handsome as many an evergreen shrub. Another variety, Dr. Felix Guyon, is also quite conspicuous in this direction. I freely admit this is an exceptional autumn, and in all my experience I do not remember when such a wealth of flowers could be cut in November. But even allowing for this, there are many beautiful sorts with branches that are nearly bare of foliage, and those that are the exact opposite to this are quite conspicuous just now. Besides the sorts named, particularly good are the following: Marie d'Orleans, Grösse an Teplitz, Grace Darling, Caroline Testout, Admiral Dewey, Mme. Ravary, Enchantress, Edmond Deshayes, La Tosca, Mme. C. P. Strassheim, Souv. de Pierre Notting, and Corallina. Grouping such together would not be a bad plan, as our collection of hardy-flowering shrubs of an almost evergreen character is not too large. P.

ROSE MME. ISAAC PEREIRE.

I was greatly pleased to find "S. A." (page 336) recommending this useful Bourbon Rose. I have grown it for years, and find it one of the best of our garden Roses. Visiting the gardens of Sir R. Tyrwhitt-Wilson, Stanley, Bridgnorth, a short time since, I found it growing there luxuriantly and covered with its large, sweet-scented blossoms. The soil there is light, with a sandy bottom, but the present season just suited it. I grow it here in Norfolk against a wall facing east; it does admirably. The soil is of a loamy nature, just suitable for strong-growing Roses. It also does well with me as a standard, and this year proved one of the best features in the Rose garden. It also does well on its own roots; in fact, I think this is the best way to grow it. The flowers this summer have been unusually fine, and I have now (the 15th inst.) several blooms of splendid colour and size. T. B. FIELD.

Ashwellthorpe Gardens, near Norwich.

JOTTINGS ABOUT ROSES.

(Continued from page 356.)

ANOTHER reason is that it does away with the custom of digging amongst the plants, which to me is just as barbarous as digging amongst groups of hardy shrubs. In either case it does untold damage to those best of all roots, surface ones. If we want, however, to carry out this system of mulching beds, which are carpeted with one or other of the dwarf-growing plants just recommended, we must do one of two things. Either we must lift all the carpeting plants, put on the mulch, cover this with a light dressing of soil, and then put back the plants, or else we must abandon the idea of mulching altogether, and rely upon liquid manure alone. After careful trial I have come to the conclusion that the best method is to combine the two, that is, to lift the plants used for carpeting once in every two or three years in order to give a mulch, as well as to freshen up the surface soil. For the rest of the time liquid manure should be used. Of course the system of carpeting Rose-beds with other flowers has its disadvantages, but these are not serious. For one thing it prevents the use of the hoe, but in permanent beds, which are often placed in conspicuous places, such as on lawns in front of the house, our one aim should be beauty and repose, and this can never be gained if we are constantly hoeing and disturbing the beds. Besides we never find that the surface soil of a well-made bed dries or cracks when carpeted over with low growing plants, as these naturally check evaporation. Then there is another point to be borne in mind, and that is that those who insist upon mulching their beds every spring, after the manner I have recommended, can use half-hardy plants, such as *Polygonum capitatum*, &c. These will not require to be planted until May comes round, and so will not interfere with the practice of mulching.

I think I have explained, without being inconsistent, that it is easy to adopt the system of mulching both with plants as well as with manure, and this without injury either to the carpeting plants or to the Roses themselves, and I will therefore next turn to the subject of protection, which, considering the unripeness of the plants this season, is of more than ordinary interest.

HOW TO PROTECT.

The first point to consider is that of earthing up the plants, because it is a custom which has become very general, and I am going to refer especially to Tea Roses planted in groups for bedding. Unless they are particularly vigorous growers they will probably be planted 18 inches to 2 feet apart, and the beds are sure to be full of roots, many of them close to the surface. Even if the surface is not carpeted with dwarf plants it is wrong to earth up the Roses to the height of 6 inches with the actual soil of the beds, because in doing so we are bound to disturb the roots. In order to overcome this difficulty I have tried any number of plans, and now give the results of my experiments. Provided the beds are uncarpeted there is nothing to surpass newly-fallen Beech or Oak leaves heaped up all over the bed, and kept in position by surrounding

it with galvanised wire netting 1 foot in height. This may be painted dull green in colour, and the whole arrangement will have an air of neatness about it which might not be expected by those who have not seen it carried out. It is almost needless to add that this forms a most effective protection.

Or another plan, though much more laborious, is to wheel a few barrowloads of burnt refuse from the bonfire heap on the beds and then to earth up with this. In conjunction, either Bracken, Fern, or branches of Yew and Laurel may be used to protect the upper parts of the plants. On heavy soils this burnt refuse will prove of great value to the plants, and unless the beds are already too high there will be no need to take it away in the spring. At any time I feel sure that it is a great mistake to earth up Roses with heavy cold soil.

If the beds are carpeted with plants which we are anxious not to disturb we must adopt a slightly different treatment. After trying several ways I find that the best of all is to wrap small sods of peat or turf from a sandy meadow around the collars of the Roses, and to put some Bracken into their heads. This never seems to prove detrimental to the carpet of plants beneath. There are, of course, a number of hardy Tea and Hybrid Roses, suitable for planting close to the windows of a house, which require no protection at all; and this perhaps as well that in such positions they should be used so as to avoid the untidiness frequently caused by the materials employed in protecting. Marie d'Orleans, Grace Darling, Marjorie, Caroline Testout, La France, Augustine Guinoisseau, Grossherzogin Victoria Melita, Viscountess Folkestone, and others are all well able to stand frost which would injure more delicate Roses.

Worcestershire.

ARTHUR R. GOODWIN.

THE INDOOR GARDEN.

TREE CARNATIONS.

AUTUMN PROPAGATION.

IN the cultivation of the Tree or perpetual Carnation there is no phase of the subject so important and, at the same time, so seasonable as autumn propagation. It is important to those who require large supplies of choice cut flowers during the autumn months, and it is practically the only way of obtaining large bushes that will give plenty of flowers for weeks in succession. Not a few of those who grow these useful flowers consider January and the two following months early enough and covering a sufficiently long season in propagating to ensure a lengthy flowering time. It is quite true that excellent plants may be grown from the cuttings propagated within these limits. The chief drawback is that they do not yield the same early harvest of flowers as those propagated earlier. In other and plainer words the autumn cuttings have obtained so good a lead that they are not readily, if ever, overtaken. It is under these circumstances that the grower will have to decide what season the flowers will be of the greatest value, and act accordingly. As a set-off against this, however, good cuttings often root more freely at this season in slight warmth than early in the year. This is due to the comparative firmness of the wood composing the cutting, and naturally there is the knowledge that such cuttings as now exist are the result of growth made in the open air during the past weeks. On the other hand, such material as may be available in January or thereabouts is the result of growth made during the shortest days of the whole year. It is, however, quite probable that the latter form root to a high percentage. It is, indeed, a question of room, light airy houses, and abundant ventilation. Not at all times, however, is the balance in favour of those plants grown in the open air. For such good cuttings as are now procurable a manure bed, in which the heat is just declining, and with not more than a maximum than 60°, is well suited. The cuttings may be half plunged in the bed in pots 5 inches across and inserted in about 2 inches of pure sand, below which an ample drainage is pro-



GRASS PATH WITH FLOWER BORDERS AT THE ELMS, YALDING, KENT.

rided. Insert the cuttings firmly in the sand. When they are inserted the sand should be quite saturated with moisture. It is most important that green growing cuttings only should be used, as those of a woody nature or from exhausted or neglected stock are almost useless. I have known cuttings from exhausted stock to fail entirely, whereas, had the plants yielding them been put under glass a month before the cuttings were required, the result would have been different. Much has been written in the past about the size of the cutting, as though one 2½ inches long would root and none other. I prefer material of 4 inches or even 6 inches long. Most important of all is that the cutting should be a fresh and growing one. In the percentage that will root far more depends on this—the condition of the cutting—than its size and all the soil mixtures put together. This and a temperature ranging between 50° and 60° will be found best.

E. H. JENKINS.

THE FLOWER GARDEN.

GRASS PATH BORDERS.

S HOWN in the illustration is an ordinary grass path with borders (very ordinary they look, I fear) in my garden, a few remarks on which may be of interest. First, as to the borders. That on the left of the picture is full of all sorts of shrubs and perennial flowers, with somewhat formal lines of Roses, Madonna Lilies, Solomon's Seal, &c., a detailed description of this would, I think, be wearisome and unprofitable. But I have just reorganised the right hand border, removing from it a lot of rubbishy old pyramid Pear and Apple trees, widening it considerably, thoroughly trenching the ground, and replanting on a colour system more or less original, the effect of which I am longing to contemplate a year or two hence. In the meantime I should indeed be grateful for any suggestions or advice as to suitable plants and shrubs omitted, or undesirable ones included.

I think I used to dream of my new border before I actually began work on it, for many were the wonderful, glorious, and superbly-

coloured shrubs and plants, quite unknown, alas, to science, that were to be found there. Certainly, I thought of it day and night, and talked about it, probably too much, for a certain facetious but inconsiderate gardening friend, with lamentable absence of sympathy, described my condition at the time as "bordering" on insanity. One resultant idea, however, and that a practical one, was to shelter the whole length of the border from the east winds by planting inside the fence a hedge of purple Beech, against which, as a background, there should be groups and detached bulbs of *Lilium candidum*, no matter what else was to be planted in the front portions. Thanks to Mr. Anthony Waterer, of Knap Hill, this hedge is already a fact, and so are the Lilies, while, for want of my fascinating dream-land flowers, I have been compelled to make use of less desirable but more permanent things, recognised and described in the prosaic catalogues of the present day.

Beginning at the top end of the border with a blue section, I have *Ceanothus* (several forms), a *Clematis* on tripod poles, *Delphiniums*, *Polemoniums*, *Clematis davidiana*, several *Campanulas*, &c., with a foreground of *Pentstemon glaber*, *Plumbago* *Larpentæ*, *Love-in-a-Mist*, *Chionodoxas*, &c. Next to this section, and blending with it, comes a yellow group, *Laburnum* *Watereri*, *Jasminum nudiflorum*, *Buddleia globosa*, *Berberis* of many kinds, a climbing Rose (*E. Veyrat* *Hermanos*), on an old Cherry tree, *Potentilla* *Friedrichseni*, *Rudbeckias*, *Helenium Bolanderi*, &c., the front being occupied by the yellow *Carnation* *Miss Audrey Campbell*, and *Narcissi*. I thought of adding *Winter Aconites* as a ground-work in places, and perhaps an edging of yellow *Crocuses*, but the leaves of the latter take so long to die, and are so untidy that I am doubtful about them. Probably *Narcissus minimus* or *N. minor* would be preferable.

The yellow flowers gradually give way to pinks and reds, such as *Ribes*, one or two species of *Prunus*, a *Monthly Rose*, dwarf *Almonds*, *Salvia splendens* *Bruanti*, *Gladiolus*,

&c. Hints for an edging to this section would be gratefully received. The colour scheme is now brought up short by a cross path leading from the central grass one to a rustic seat under a couple of Scotch Firs. This cross path is broadly fringed with *Tritomas*, *Yucca filamentosa*, *Gladiolus*, *Watsonias*, and other "spiky" things, to be eventually edged with something, at present unknown, which must be superlatively lovely, free-flowering, and sweet-smelling. I wish I could put a name to it! I fear *Daphne Cneorum* would not succeed so near the Fir trees, though it grows well with me elsewhere. Beyond the path and its fringes there follows another yellow scheme, more *Berberis*, several *Brooms* (which come opposite to my "broomery" on the other side of the main grass path and form, as it were, the outlying termination of the group), *Neillia opulifolia lutea*, *Cornus Spæthii*, more yellow *Carnations*, and *Narcissi*.

Yellow blends with the next, or white, section, which comprises various *Spiræas*, *Deutzias*, *Clematis Vitalba* on poles, and other things, and which again, starting with a *Blush Rambler* Rose on another old Cherry tree, merges into pink and red, these colours produced by *Robinia hispida*, *Spiræa Watereri*, *Astilbe davidiana*, &c. Then a group of *Arundo Donax* intervenes, leaving the extreme corner of the border free to be used for a rather mixed lot of colour, *Lavenders*, *Veronica purpurea*, *Tamarisks*, and smaller plants, the fence at the end being fringed with an "omnium-gatherum" of *Hemerocallis*, *Foxgloves*, *Verbascum pan-nosum*, and *Anemone japonica*.

I hope I have made this description sufficiently intelligible. The idea of making a border in various colour sections is not original. I saw it mentioned in the abstract in an article—I think in *THE GARDEN*—some little time back. But the combination of a background of dark purple Beech, and a series of groups of *Lilium candidum* in front of it, with the colour scheme, is, I consider, my own particular patent, and I am simply dying to see the result of all my digging and planting later on. Doubtless many alterations will have to be carried out as suggestions are made or colours are found unsatisfactory, but the central idea will, I trust, remain. Of course, the difficulty is with the blue section, blue shrubs and flowers, especially the former, being unfortunately so few in number. Whites and yellows are a drug in the market, while pinks and reds are plentiful enough.

Secondly, concerning the grass path itself, I may perhaps be allowed space for a few notes on its original construction. Being the owner of a small orchard adjoining the border, where the grass, though somewhat long and coarse, was of fair quality, I was fortunately able to cut as much turf as I required close to the spot, a great advantage, obviously. A fairly level place among the trees was selected, mown with the scythe, well rolled, and then machined, the sods being taken off rather thin and carefully rolled up for removal to the path. The latter had been previously prepared as follows: The loamy soil being fairly porous, no artificial drainage was necessary (had it been of a more clayey nature I should have worked in some brick rubbish and ashes with the top "spit"), and the surface was simply formed and lightly rolled to shape, in this case about 5 feet wide, with the centre some 4 inches higher than the sides. After the shaping and rolling some fine ashes (the best thing, bar road-scrappings, to encourage root-growth in the old grass sods) were scratched in with a rake, and then the turf was laid down, lightly beaten with the back of a shovel, and the whole

finally rolled with a small roller. As the sods were laid a sprinkling of fine ashes was added under the joints, and any thin places, care being taken to keep the edges true and tightly jammed one against the other. I think this last-named process, the judicious addition of the fine ashes or road grit being understood, constitutes the one and only secret of turf-laying. New roots quickly start, and a firm hard turf is assured. I have had little to do with making grass paths by sowing seeds (and I should always prefer to use turf), but I know that this is bound to be a success if a nice top layer of ashes or road scrapings is incorporated with the surface soil, and the path lightly rolled or beaten, and then scratched over before the seed is put on.

A good firm foundation and fairly convex section are, of course, indispensable in any case. Personally, I should recommend sowing in March; considerable experience with both autumn and spring sowings leads me to this preference. Of course, any mild open weather from October to April will do for the laying down of turf, but when once cut it should be got into its new quarters as soon as possible, and, I need hardly add, the less the path is used for the first month or two the better. In the case of seed the birds are a great nuisance at first, especially chaffinches and the abominable sparrows, who take a heavy toll if not looked after. The best plan to keep them off is to drive short wooden pegs here and there into the ground as supports to pieces of ordinary wire netting laid all over the newly-sown path at a height of several inches above the surface.

S. G. REID.

NOTES ON LILIES.

A YEAR or two back a list of dates was published in THE GARDEN on which certain Lilies might be expected to appear through the ground in the spring, and this list was further repeated in Miss Jekyll's charming monograph. As the dates there given do not at all correspond with those that we get down here in the favoured south-west, I this year made a note of the first appearance of those that I possess, and the results of which I have embodied in the following table, with, in the second column for comparison, the dates given in the list previously mentioned:—

L. longiflorum ..	Feb. 12	March 8
L. excelsum ..	" 13	April 13
L. platyphyllum ..	" 24	March 11
L. Hansonii ..	" 26	" 19
L. tigrinum ..	March 4	" "
L. Henryi ..	" 7	March 19
L. szovitzianum ..	" 9	April 23
L. speciosum Kraetzerei ..	" 11	March 25
L. giganteum* ..	" 12	" "
L. Humboldtii ..	" 16	" "
L. chalcidonicum† ..	" 19	" "
L. croceum ..	" 19	" "
L. umbellatum ..	" 19	" "
L. pardalinum ..	" 21	" "
L. pomponium* ..	" 22	" "
L. Martagon ..	" 23	" "
L. Martagon album* ..	" 25	" "
L. pyrenaicum* ..	April 1	" "
L. canadense ..	" 7	May 4
L. speciosum roseum ..	" 9 (cruentum)	March 17
L. Batemanniae ..	" 12	May 14
L. concolor* ..	" 18	" "
L. bulbiferum ..	" 20	" "
L. superbum ..	" 22	" "
L. sulphureum ..	" 23	" "

* Signifies planted autumn, 1902.
† moved

Of course, the main difference is that here we are three weeks or so earlier. But the difference in dates of L. excelsum is the most curious, as here there is always a race between it and longiflorum which shall be the first through. Szovitzianum is also one of the earliest with me, but in the previous list it is seven weeks later. The only instance where we are behind is with speciosum roseum, which is much later than cruentum, itself a late variety. This may be because their place of abode does not get any winter sun at all. They did not bloom until the middle of September.

As regards soil and situation, the former consists of about 5 feet in depth of light alluvial soil in the valley of the Exe, lying on gravel. The garden, a small one in the main street of a suburb of Exeter, is well protected by high walls from wind, and most of it certain of shade during some portion of the day. Peat has been added where some of those are that need it, but no other alteration of the soil has been attempted.

Most of my collection consisted originally of one or two bulbs, with the idea of increasing the number of those that did well. As regards individual species, longiflorum quickly dies out, and has to be replaced. Spring frosts are very hard on these. Excelsum flowered the first year, but became overgrown by its neighbours, and was removed as it did not bloom again. The numbers have increased, but, although stronger, it did not flower this year. The first platyphyllum was most precious, both in early flowering as well as appearance, as it was last year. The next of the group did not appear till a month later. I do not think that this species will be permanent. Hansonii, a small bulb, flowered in a poor sort of way in 1902, its first year, but had to be moved, and was not so strong this year—not flowering. Tigrinum, Henryi, and szovitzianum all doing well and increasing. I cut a spike of Henryi when about half the blooms were expanded, and in water it went on for over a fortnight, all the remaining blooms, about twelve in number, expanding in full perfection. Speciosum Kraetzerei was not so strong this year as last, owing, I think, to a bad and overcrowded position. Giganteum flowered about 3 feet high, poor, and even that was completely destroyed by slugs. Humboldtii, planted in the spring of 1901, lay dormant that year, came up well and flowered in 1902, but was weak with no bloom this year; Chalcidonicum, planted 1901, flowered in 1902, but probably owing to a shift being necessary did not flower this year. Croceum, umbellatum, and pardalinum are good, especially the latter, two bulbs having increased to about twenty-five in four years. Bulbets of Croceum appear about three weeks before the date given, that being the one for the main stem. Umbellatum comes up and flowers yearly, but does not increase much. Pomponium, two small bulbs, did nothing, making only about 3 inches of growth. Martagon does well. Martagon album, growth small as expected for first year, one bulb flowered. Pyrenaicum good. Canadense doing well and increasing. Speciosum roseum doing well, but no increase. Batemanniae and concolor small growth, but first year. Superbum doing well and increasing. Sulphureum, planted spring, 1902, did not appear until early July, and gave two buds, but too late to mature; this year gave one flower, which opened, but had a little deformity, owing, I suppose, to the cold summer. However, as the one bloom was 7 inches long, I do not complain, but the colour was rather paler than I expected.

Brownii has twice died out with me after blooming the first year. The best gave two blooms on two stalks one year, then one on one stalk, and then disappeared. I have not been able to keep any of the elegans section, having died out twice, and a fresh lot planted last autumn did not appear at all. Rubro-vittatum, Kramerii, rubellum, and Wallacei planted last autumn also made no appearance. Owing to a change of houses, I am very nervous as to the future of my favourites, especially as by reason of the weather I can make no headway in preparing their new quarters, and when the shift does come they will all have started root action, which will further imperil their chances of future happiness. Even at best it will be a year or two before they are established, which will preclude any further account of my adventures with this most fascinating group of hardy plants for some little time.

Beaufort House, Exeter. MARK FARRANT.

ORNAMENTAL GROUNDSLS (SENECIOS).

In view of the ubiquitous character of the common Groundsel, the above preposition is studiously selected to show—as I hope also to prove by the

following notes—that other members of this same genus are among the boldest of ornamental plants for the garden in some place or other. Some of these have long been known to gardeners; others lay claim to recent introductions or novelties yet awaiting distribution. Examples of both of these having come to light within the past year, the time would appear somewhat opportune for briefly glancing at the different kinds and noting their garden or decorative worth. Within a period of twelve months Messrs. James Veitch and Sons, Limited, Chelsea, have introduced from China two quite distinct novelties in this group. The first of these novelties is

SENECIO CLIVORUM.—A remarkably handsome plant, first exhibited by the above firm about a year ago, when it gained an award of merit from the Royal Horticultural Society. It is about 3½ feet high as at present known, producing large and handsome radical, roundly-peltate leaves, above which the stout, much-forked stems and heads of rich orange-yellow are very striking. It is very attractive in the distance. As a subject for the margin of pond, lake, or streamlet we have here a fine plant flowering in August and September. It is a true perennial and quite hardy. The most recent novelty is the following, shown on September 15 by Messrs. Veitch, and gaining an award of merit as above stated.

S. TANGUTICUS is the distinguishing name of this Chinese plant; it is, however, certainly the most elegant of the family known to the writer. Its height is about 4½ feet, habit erect, and producing terminal pyramidal panicles of rather small starry yellow blossoms. It is, however, in the very neat and much-divided leaves that the plant presents a feature quite unique. In the general outline the leaves approach to cordate, and are deeply serrated almost to the midrib. In the disposition of the leaves it is not unlike that of Bocconia, and with the same slight drooping tendency on the stems. Thus it will be seen that this latest novelty is certainly one of the most distinct and ornamental. It is also very elegant.

S. SIBIRICA.—This is also a striking species 4 feet to 5 feet high, the large orbicular-cordate leaves strongly saw-edged and borne on deeply-channelled stalks 18 inches long. The inflorescence is pyramidal in outline, the starry blossoms solitary on 3-inch petioles, stem strongly ribbed. Ray florets 1½ inches long and golden yellow.

S. HODGSONI.—In this Japanese species the leaves are large, thick, and leathery to the touch, glossy, orbicular, deeply and coarsely serrated. The inflorescence is somewhat dense and crowded, particularly before the rich golden yellow flowers open. When cut, the last two named species take up water with extreme readiness, and hence there is evidence that the growing plants are at home in a more or less moist soil. July and August.

S. LEDEBOURII.—A Siberian species with many-flowered pyramidal inflorescence 5 feet more high. The glaucous, oblong-obovate leaves are supported on stems 18 inches long, midrib conspicuously broad. The golden yellow flowers are not of large size, but are numerous and showy. July and August.

While the genus Senecio itself is a most extensive one, it is worthy of note that the species hitherto regarded worthy of cultivation are for most part tender. It is with this fact in view, noting the important recent additions to the genus, that I venture to direct attention to the above hardy, and imposing kinds, some at least of which should find their way into the many good gardens of the British Isles.

E. H. JENKINS.

RIVIERA NOTES.

WHILE England has been deluged with rain all summer, the Riviera has endured a very protracted drought, and no rain whatever fell between the end of June and the end of October. In consequence there are many deaths to deplore in most gardens on this coast, and the autumn crop of Roses is later

than it usually is. This will be no loss if December keeps mild and sunny, but should an early frost occur, the damage to the fast-growing shoots and buds will be immense. My over-zealous gardener, in the exuberance of his good intentions, on seeing that no rain fell at the end of August, set to work to prune and water all my Roses quite regardless of both my wishes and of the forcing conditions of a hot and dry autumn. In consequence of such severe and early pruning, and abundant watering with a high temperature, the growths are all drawn and spindly, as if grown under glass, and instead of a good autumnal bloom I find long, weak shoots and poor, thin flowers, mostly deformed, and fading ere they open! Such are the trials of the gardener who leaves his garden for five months in the year when the garden should lie fallow to prepare for the winter show. It is worth noticing, however, that a few Roses endure these unfavourable conditions and stand out prominently in consequence among the crowd of failures. It means, I suppose, endurance of heat in a great measure, so that does not apply everywhere. Still, for all who grow winter Roses on this coast, it is worth chronicling that Caroline Testout, Antoine Rivoire, Georges Schwartz, Lady Battersea, Souv. de President Carnot, and that excellent red Rose Eclair are far the best Roses this autumn. It seems as if White Maman Cochet is as free as the old Marie van Houtte, and a far better Rose for cutting, though not more effective on the bush. Frau Karl Druschki suffers from heat evidently, but, given rain and a cooler temperature, there may be some good blooms after all.

I wonder why that splendid Rose Mme. Ernest Calvat has not made its appearance in England. I saw it the other day in the greatest luxuriance and beauty in a moist and sheltered garden. Its clear lemon-cream flowers, perfectly uniform throughout in tone and tint, struck me as most beautiful and distinct. Curiously enough, I see its colour described as pink in the only catalogue where I have found its name, but certainly as grown here there is no shade of anything but lemon and cream in

the flowers I have seen. Its foliage is persistent and nearly as glossy as sinica Anemone, a Rose which has now established itself firmly in the affection of all gardeners here. Whether it will prove too vigorous a grower and shy in flower when grown in the north I cannot say, but I know I should try how it behaved and wait a year or two till it had covered a good space if need be, just as Mme. Bérard and Duchesse d'Auerstadt need waiting for, but in the end repay the delay.

There is little doubt, I fear, that the beautiful yellow Rose Georges Schwartz is not a dependable doer in England. Here, however, it enjoys the conditions, and is, moreover, an excellent winter bloomer. There is no Rose of its size and colour to surpass it, and it seems to be perfectly perpetual. The stout-petalled buds open well in January, so that it should be in every garden where yellow Roses are prized. Just now fashion is decidedly against the yellow Rose, but a really good thing is always worth growing, whatever may be the craze of the day.

Tritoma primulina is at last flowering, and much admired on a north aspect, but it will not stand the summer sun here if fully exposed to its heat, so it is a plant for a special position. A strong clump of it with a number of its clear yellow "pokers" would be a desirable plant in many gardens where shade can be found.

Primula megaseæfolia has surprised me by the size and colour of its blooms in this climate. One longs for a quantity of it; it is so much more beautiful than *P. obconica*, and I should think some good hybrids may be obtained from it when crossed with other purple or lilac Primroses. *Primula kewensis* is growing, but as yet *P. verticillata* is my especial favourite here; it is so vigorous, free, and hardy, and its mealy foliage so distinct and handsome.

This dry and rather hot season has suited the splendid *Salvia frutescens*, and a big shrub fully 13 feet high, crowned with large and feathery heads of scarlet flowers rising from rich sprays of green foliage, is a joy not to be hastily put aside and forgotten, but to be

treasured up for some dark and wet day when the white Lily-like bells of the Tree Dahlia not far off will have shed their soft petals and strewn the ground.

Romneya Coulteri has been refractory to treatment, so far as flowering in autumn goes; but at last one plant, that was cut down at the end of August, is giving a few fine flowers, which are a great ornament to the wild garden where it grows. Still, I fear it is not a plant for extended culture here, as it does not flower early enough in spring, though it grows like a weed in this calcareous soil.

Iris alata, when left to itself, is in abundant blow. Its vigorous foliage and bold blue purple flowers are a pleasant contrast to the various climbing and Tree Senecios now in beauty. *Senecio arborea* is the handsomest of them all; its massive golden Cauliflower heads, surrounded by green Chestnut-like leaves, are shown to great advantage when grown on a single stem. It is a plant that should be used for winter effect in English cool greenhouses or conservatories where there is room for a fine bold effect, as it blooms continuously from October to April when well fed. As it prefers a little shade here it would withstand the gloom of an English winter without being unduly drawn and spoiled. How much to be regretted is it that such things as *Salvia frutescens* and *Dahlia Imperialis* will not show their beauty under glass.

Nice.

EDWARD H. WOODALL.

TREES AND SHRUBS.

RHODODENDRONS IN CORNWALL.

HIMALAYAN RHODODENDRONS have found a congenial home amid the hills and valleys that run inland from the southern Cornish coast, and in the gardens of that exceptionally favoured locality all the best and rarest species may be met with growing freely in the open air. Here are to be seen giant bushes of that queen of Rhododendrons *R. Aucklandi*, now known as *R. griffithianum*, with pure white flowers 5 inches across, as many as nine of these being sometimes carried on the same truss. The finest specimen that I know is 12 feet in height and 22 feet in diameter, and is a glorious sight when in full bloom. This is growing at Killiow, near Truro, and is about forty years of age. *R. Falconeri*, although its flowers cannot compare in size with those of *R. Aucklandi*, being tubular and closely set in the trusses, is a handsome species, its striking foliage giving it a distinct appearance. The large, oblong leaves are from 10 inches to 12 inches in length, and are covered on their under sides with reddish down, while the flower-trusses often hold as many as thirty blossoms.

The example here illustrated is growing at Tremough, and is about 17 feet in height and of a similar diameter. Tremough is justly celebrated for its Rhododendrons, many of the best of which were raised from seed sent by Sir Joseph Hooker from the Himalayas to the father of the present proprietor nearly sixty



RHODODENDRON FALCONERI AT TREMOUGH, CORNWALL (HEIGHT 17 FEET).

years ago. In April the different forms and hybrids of *R. arboreum* afford a splendid display, many of these being enormous bushes. One is 25 feet in height and 30 feet through, its trunk a little way above the ground being divided into three stems, one of which measures 3 feet in circumference. The largest specimen of *R. Falconeri* that I have ever seen, which I believe to be the finest in England, is at Tregothnan, and is 22 feet in height and 30 feet through. It is very symmetrical, the foliage sweeping the ground on all sides. I had the pleasure of seeing it in bloom last year, when it was carrying over a thousand flower trusses and presented a marvellous picture. The flowers of *R. Falconeri* are creamy white, shaded with lilac at the base. *R. eximium* is a variety of this species, and bears bright pink flowers.

At Tregothnan there is also a very fine example of *R. grande*, better known as *R. argenteum*, 16 feet in height and more in diameter. This specimen bore over 300 bloom

dodendrons, and therefore from allusion being made to any example of special interest, it must not be inferred that numerous other species and hybrids are not grown.

In this connexion Menabilly may be mentioned for its rose-coloured *R. Aucklandi*, Carclew for its gigantic *R. arboreum*, about 35 feet in height, with a trunk circumference of over 4 feet; Enys for *R. Roylei blandfordianum* and *R. campylocarpum*, though the finest specimen of the last-named that I know of in the south-west is growing at the Earl of Morley's seat at Whiteway, Chudleigh, South Devon, this being 8 feet in height and about 6 feet through. Anyone desirous of making a study of all the *Rhododendrons* that flower in the open in Cornwall would require either to make a lengthened stay in that neighbourhood or to pay a series of visits extending over a considerable period, for the plants are in flower from November to June, the display commencing with *R. nobleanum venustum*, sometimes

leaves are bronzy; in summer deeply and irregularly margined with gold. The habit of the plant is vigorous, the variegation constant, and the foliage does not scorch in bright sunlight, as is the case with some plants with golden variegated leaves.

BERRIED SHRUBS.

It is questionable if we recognise to the fullest extent the possibilities of some of our hardy shrubs as decorative subjects, not in their normal state out of doors, but when grown in pots and treated as indoor plants. These remarks apply more particularly to the *Aucubas* and *Skimmias*, which, apart from their handsome berries, have smooth and glossy leaves, hence dust, inseparable from indoor decoration, has little effect upon them, and this, combined with their hardiness, enable them to be used over and over again in positions where such tender subjects as *Solanums* and *Rivina humilis* would be quickly injured. That *Aucubas* and *Skimmias* can be well berried in this way was shown at the Drill Hall on October 27, when Mr. John Russell of Richmond put up a group of splendid examples covered with berries. Anyone acquainted with the decorating of corridors and passages must be well aware of the death among tender plants in such positions, and for these purposes the *Aucubas* and *Skimmias* strongly appeal, as after several days' use a good watering and syringing will do a great deal towards restoring them to their original freshness. The green-leaved *Aucuba vera* is more effective than the ordinary variegated-leaved variety for such purposes, being less vigorous in growth, hence the berries are displayed better, added to which the deep green foliage is superior as a setting to the scarlet berries than the variegated is. While on the subject of *Aucubas* it is interesting to note that of the two dozen which occur in the Royal Horticultural Society's list of certificated plants, no less than twenty-one received their award in the sixties, thus showing the immediate stimulus given by the introduction of the male form, as the common female kind was grown years before. Of the *Skimmias* the best is the garden form *Foremani*, which has greatly advanced in popularity within the last few years. This was given a first-class certificate on December 13, 1888, when on a typical dull midwinter day a splendid berried group attracted the attention of every one present. The *Skimmias* and bright-leaved *Euonymuses* are very welcome even in the greenhouse at this dull season, or in a cold house by themselves with other shrubs of value for their showy fruit or variegated foliage. They are very easily grown, and remain bright and fresh over a long season.

T.

NOTES ON HARDY PLANTS

ANDROSACE LANUGINOSA.

THIS beautiful little plant, which, with one or two other species, form a distinct section of the genus peculiar to the Himalayas, is generally found in its native habitat growing on rocks and banks, at an elevation of from 7,000 feet to 10,000 feet above sea level, in the Western Himalayas, from Kumaon to Kashmir. The whole plant is densely covered with long, almost silvery-white silky hairs, and produces runner-like branches, trailing and forming at intervals rosettes of leaves. These rosettes do not root, in which respect it differs from its nearest ally *A. sarmontosa*, in which species the rosettes root as they spread. Seeds of this charming alpine were collected by Dr. Royle and sent to Dublin Botanic



CORNUS ALBA SPAETHII IN THE ROYAL GARDENS, KEW.

trusses in 1902, and was at its best towards the end of March. The flowers of this species are white with a purple tinge at the base, are more campanulate, slightly larger, and less closely set in the trusses than those of *R. Falconeri*. The leaves are almost as large as those of the last-named species, and are silvery on the undersides, this fact being responsible for the specific name of *argenteum*. In the sheltered gardens of Trebah, which occupy a deep valley running southward to the shore of Helford River, where many rare and tender plants may be found enjoying the best of health, amongst them being a vigorous young specimen of the Cape Silver tree (*Leucadendron argenteum*) that has successfully passed through a winter in the open, fine bushes of the sweet-scented greenhouse *Rhododendrons* are growing unprotected. Of these Countess of Sefton is 6 feet by 6 feet, Gibson is of the same size, fragrantissimum is 7 feet high, Lady Alice Fitzwilliam 5 feet, and exonensis 3 feet high and 5 feet through. Almost every garden of any size in Cornwall contains a good collection of *Rho-*

even as early as October, and concluding with *R. Nuttali* and *R. Dalhousiae* in the early part of the latter month, though it may be said that the two last-named are but rarely met with in the open. S. W. FITZHERBERT.

CORNUS ALBA SPAETHII.

CORNUS ALBA, the white-fruited Dogwood, is a native of Siberia and Northern Asia. It is not found wild in the United States. Growing to a height of from 5 feet to 10 feet, with slender branches clothed with bright red bark, it produces a charming effect all through the year, either in a mass or as a specimen plant on a lawn or in the shrubbery. The white or cream-coloured flowers are produced in crowded cymes, and are followed by white fruits. The variety *Spaethii* is one of the finest and most satisfactory—in our climate, at any rate—of shrubs with coloured leaves. It was sent out some years ago by the famous Berlin nurseryman after whom it is named, and we learn from him that it originated in his nursery as a graft sport of the common *C. alba variegata*, being produced on the stick below the graft. In spring the

Gardens, where it flowered in 1842. Easily grown in most districts, it prefers a sunny situation facing south, and planted so that its trailing shoots can hang over the front of a large stone. This will keep it from damping off in winter, a process to which it is peculiarly liable on account of the woolly nature of the leaves. The compost suited to its requirements is a gritty sandy loam; in this it will grow luxuriantly, producing its delicate rose-coloured flowers in abundance; slightly variable in habit, and in the colour of the flowers. There is more than one form in cultivation, and others have not yet been introduced. The best known is A. l. var. *Leichtlinii*, sometimes called *A. oculata*, with white flowers, having a yellow eye. This form was introduced in 1890.

Other forms not yet introduced are *Androsace* l. var. *glabrior*, a plant almost devoid of the silky hairs of the type, and A. l. var. *primuloides*, of very compact habit and short scapes. Flowering from June to September, it is readily increased by means of cuttings or layers, which root freely.

W. IRVING.

COMPACT TROPEOLUMS.

On the 31st ult. this race of dwarf *Nasturtiums*, which comprises about four distinct types, were flowering as gaily as at any time during the summer. The origin of this race dates back some thirty-five or forty years ago, when Mr. James George was a gardener at Stamford Hall. The *Nasturtium* was a favourite flower with his employers, and he grew beds of both the trailing and the Tom Thumb types. One summer he noticed in one of his beds a singularly compact type, with scarlet flowers of better shape, much more freely produced, and he also discovered that it seeded much less freely than the ordinary dwarf *Nasturtiums*. He took cuttings of this; he also took seed of it, and it was eventually distributed as *Tropeolum compactum coccineum*. Later came the distinct *Beauty of Malvern*, subsequently improved to *Bedfont Rival*; later on came yellow forms, viz., *luteum* and *luteum Improved*; then *Lustrous*, a deep crimson variety, with dark foliage; and, later still, *Octoroon*, with maroon-coloured flowers, all following the compact type, all very free of bloom, and, seeding sparingly, remained in flower all through the season. The ordinary dwarf *Nasturtiums* seed very freely; they come with a great mass of flowers, and only sparingly afterwards, because the maturation of the seeds engages the energies of the plants.

On the date above named I could have plucked many blossoms from plants which had bloomed for a large number of weeks past. By means of careful selection the various colours are found to come pretty true to character.

The compact character is perpetuated by taking cuttings of some of the very best varieties, and, though plants propagated in this way are found to be shy seed producers, yet the prevailing characteristics of the type are kept at a high level. The *Nasturtium*, both tall and dwarf, has amply repaid their employment in the garden during the moist summer. The trailing varieties have been particularly effective in fore-court gardens as pyramids and pillars and for the purpose of forming screens. Drenching rains appear to have had little effect upon restraining their copious floriferousness. The raging winds did them some damage, but their vigorous growth soon replaced damaged shoots, and now, though

there is a great reduction of bloom, their ample leafage has a furnishing value, and one hopes it may be days before they and their interesting relative *T. peregrinum* (the canary-flowered *Nasturtium*) are laid low by frost. The last-named, which has bloomed with great luxuriance during the summer months, is one of those popular plants which appear to undergo no change under cultivation. Cultivation may affect vigour of growth, and to an appreciable extent size of bloom, but change from the normal type is unknown; nor have I ever heard of its being successfully employed for cross-fertilisation, though attempts have been made in this direction. There are flowers which seem

which not many years ago was to be found growing presumably in a wild state on the walls of Rochester Castle, and it may still linger in similar positions in England as it does in Normandy. Carnations were cultivated on the Continent of Europe before they were appreciated in England, and doubtless they were brought over in many ways, principally by merchants trading with European countries from France to Constantinople. Indeed, the yellow *Carnation* was introduced from Constantinople by a London merchant, Master Nicholas Leete, in Queen Elizabeth's reign, as

stated by Mr. John Gerarde in his "Herbal," published in 1597. Lady Mary Wortley Montague, writing from Constantinople on January 4, O. S. 1715-16, states that her chamber was set out with Carnations, Roses, and Jonquils, fresh from her garden—all cut in the open air. Of course, Carnations were widely cultivated in England at this time, as we know from several treatises that were written late in the seventeenth and early in the eighteenth centuries. Indeed, if one may judge from the number of varieties cultivated, the *Carnation* was one of the most popular flowers in existence from the middle to the end of the seventeenth century. The second edition of Rea's "Flora" was published in 1676, and therein he styles the *Carnation* "*Cariophilus hortensis*." July flowers (as they are most properly called, from the month in which they bring forth their beautiful flowers) are indeed the pride of summer as Tulips are the glories of spring. Rea states that the fine old varieties such as "the gray Hulo, the blew Hulo, the white *Carnation*, the grand *Peere*, the *Christalline*, the *Granado*" had disappeared, and were not to be found in any gardens, their place

being taken by varieties raised in Holland, Flanders, and other parts of the Netherlands, and he enumerates no less than 468 varieties. About this period two small books were published in Paris containing full accounts of the *Carnation*, lists of varieties, culture, &c. The earliest in 1647 contains 149 pages. The title is "*Le Jardinage des Oeillets*," A. Paris, Chez Louis Boulanger, Rue St. Jacques, a l'Image Saint Louis. It contains a list of seventy

varieties, and nineteen chapters dealing with every phase of the *Carnation*. The next volume was published in 1676, the same year as Rea's "Flora," quoted above. It is a "*Nouveau Traite des Oeillets*, La facon la plus utile and facile de les bien cultiver, leurs noms, leurs couleurs, and leur beauté. Avec la Liste des plus nouveaux. Par. L.C.B.M., A. Paris, Chez Charles de Sercy, 162 pages, fifty-eight pages are devoted to a list of names, with long descriptions of the colours. The earliest volume in my possession is still in the old sheepskin bindings.

Ever since these early days the *Carnation* and *Picotee* have held a high position amongst



ANDROSACE LANUGINOSA. (Natural size.)

to resist all attempts to vary their individuality, and our old-fashioned and ever-popular *Tropeolum canariense* is one of them.

R. DEAN.

THE PICOTEE, WHITE AND YELLOW GROUND.

It may be as well to state at the outset that there is really no difference between a *Carnation* and a *Picotee*, except in the colour of the flowers. Both of them have descended by ordinary generation from one primal source, the well-known *Dianthus caryophyllus*, a plant

all classes of people who admire flowers for their sweetness and beauty. It may be seventy or eighty years since the white ground Picotee had reached its high standard of excellence, and the work has been handed down from one generation of florists to another, and at one time it was a point of honour amongst florists to do something in the way of seedling raising and to make an improvement in one direction or another, but I do not think a standard of excellence was set up until the year 1834. In that year a sub-committee of the Cambridge Horticultural Society was appointed to draw up a standard of excellence for all florists' flowers. The names of this sub-committee were: James Twitchett, Richard Heady, Adam Fitch, Frederick Finch, Samuel Widnal, and Edward Catling. The result of their conference was published in the "Floricultural Cabinet" for the year 1834 (page 144). The following refers to the Carnation and Picotee.

Carnations: "The flower large, consisting of a number of well-formed petals, neither so many as to give it a crowded appearance nor so few as to make it appear thin and empty, the petals broad and stiff, the guard ones well rounded, and should rise a little above the calyx, and then turn off gracefully in a horizontal direction, supporting the inner ones, which should gracefully taper towards the crown. Bizarres should have three colours in every petal, flakes two, colours strong and bright, the fewer freckles or spots the better, all the colours nearly equal, or the most brilliant colour should predominate, the white pure and bright."

Picotees: "The same qualities as to size, petals, crown, and clear white ground as the Carnations, edge of petals smooth and well rounded. Those flowers which are free from blotch or stripe down the petal below the coloured edging are greatly to be preferred to those which are marked and pounced."

A perfect white or yellow ground Picotee should have no spots or marks of any kind upon the pure white or clear yellow ground, except the colour on the margins of the petals. This is sometimes in the form of a fine line like fine wire; sometimes there is a broad margin of deep red, rose, scarlet, or purple.

In the year 1839 there was a list of 110 varieties of white ground Picotees. None of them are in existence now, but they were doubtless very fine varieties, as a few years later coloured plates of Picotees were published by Mr. Andrews of the true type in form and colour. Probably none of them were free from exaggeration, as most of this artist's flowers were highly coloured.

The yellow ground Picotee was a favourite flower early in the nineteenth century, and Hogg, in his book on the Carnation, informs us that the Empress Josephine had an admirable collection of yellow ground Picotees at Malmaison, and adds that Queen Charlotte and the princesses had a very superb collection of yellow Picotees at Frogmore; but we are not left in doubt as to their quality, for Hogg gives a coloured illustration of one. The colour is a good yellow, but in no respect can it be classed as a true Picotee. The petals are fringed, and the colours, red and maroon, dash from the margin in flakes and stripes.

It was not until 1858 that real yellow ground Picotees were produced. Mr. Richard Smith, of Witney, Oxfordshire, produced some varieties which well complied with the florist's standard. Mr. B. Simonite of Sheffield, who saw them, informed me that they were of great

excellence. Some ten years later Mr. Perkins introduced a variety named Prince of Orange; it had an excellent constitution, as I cultivated it for twenty years after it was sent out. Mr. Standish of Ascot also produced a very fine variety named Ascot Yellow. I did my best to get some vigour into this variety, but it also failed like many more yellow grounds. Prince of Orange is the parent from which have sprung most of the fine varieties now under cultivation.

Most of the new ones are of vigorous constitution, and as the varieties are now very numerous it is not worth while to grow any but those of robust constitution. It is only within the last five or six years that we have produced yellow ground Picotees equal to the standard of excellence of the white ground varieties. Mr. Martin R. Smith has given special attention to the improvement of this section. Child Harold has all the qualities of the best white ground varieties. Lord Napier is another fine variety. Lady St. Oswald is even better than Child Harold as a garden flower, but is not so near perfection. Abbot is perfect as a Picotee, and has a purple margin. Kate Coventry, Lady Sophie, St. Just, and Rabelais are also yellow grounds with purple margins. This colour has been for years plentiful amongst white grounds, but is new in this class.

J. DOUGLAS.

(To be continued.)

NOTES FROM THE MARKETS.

POINSETTIA.—The brilliant bracts of *Euphorbia pulcherrima* were an important feature in some of the decorations on the occasion of the King of Italy's visit. One grower supplied eighty dozen for this purpose. Though it is rather early for them there are some good plants coming into the market, also some cut. It is surprising how well these last if proper care is taken. When first cut the stem should be dipped in hot water; this drives the sap upwards and prevents bleeding. Exposure to cold will cause the bracts to droop, but if kept in an ordinary room they will last fully a fortnight. Although now included with the *Euphorbias*, I think it will be a long time before any other name but *Poinsettia* is adopted by market growers and florists.

Messrs. Hayes of Lower Edmon/ton.—We learn with regret that the old firm of Messrs. Hayes of Lower Edmon/ton is about to pass out of existence. The whole of the stock at the Cuckoo Hall Nursery, together with the houses and implements, being sold off. The freehold estate was previously disposed of. It is more especially in connexion with *Pelargoniums* that Mr. J. Hayes was best known. Many of our finest varieties originated in his nursery, and for many years he was one of the best market growers. He has also been one of the most successful exhibitors at the Royal Horticultural Society's shows, not as specimens, but of useful plants as grown for market. Zonals have also received attention, and Robert Hayes, a pink variety, now grown so extensively for market, came from there.

A big sale of *Liliums*.—At Messrs. Protheroe and Morris's auction rooms on the 18th inst. a very large importation of *Liliums*, chiefly longiflorum and its varieties, were offered. The whole of the samples appeared to be of good quality, but prices did not rule very high. The net result, however, should be fairly satisfactory, as we have it on good authority that this sale, which did not commence until 5 p.m., realised fully £1,500. The largest buyers were those who grow for market. Some growers took them in very large quantities, and if trade should be at all favourable they should prove a good investment. In addition to the ordinary form of *L. longiflorum*, the varieties multiflorum, eximium, and giganteum were

included in the sale, and these made slightly advanced prices. There were also some good samples of *L. auratum*, and these made much higher prices than any of the foregoing.

The new building at Covent Garden Market, which is intended to afford better accommodation for the sale of imported flowers, is now approaching completion, and the upper part is already open for business. On going through on Saturday morning last it did not present a very lively appearance, much of the best imported produce still being on sale in the general flower market. If, when we come to the busy season, all imported goods are prohibited in this building, it will be a great advantage to English growers, and accommodation in the new hall should be quite sufficient for imports of all descriptions, but as many of the commission men deal with both English and foreign I fancy there will be a great difficulty in the way of keeping either building entirely to the English or foreign goods respectively.

Chrysanthemums in Covent Garden Market.—During the past week there has been an oversupply both of cut flowers and plants. It is Chrysanthemums on every side, and on Saturday morning at the close of the market large quantities remained unsold. Among pot plants there was some good sorts of the variety Ivory. When well done this is one of the finest whites for mid-season. Souvenir du Petite Ami was good. Fleur d'Or a fine yellow. Cullingfordi makes a fine crimson for pots. Quintus, pink, is still selling in large quantities. Soliel d'Octobre has been one of the best yellows seen in pots this season.

Mr. A. F. Dutton's Carnations.—Having seen these at various shows and in the market I was anxious to see Mr. Dutton's nursery, and availed myself of an opportunity which occurred on the 31st ult. I found that Mr. Dutton's stock consisted of nine large houses, all well filled with clean, healthy plants in various stages of development. The varieties are almost all exclusively American. Mrs. T. W. Lawson was the most prominent in one house. The plants were just opening their first flowers, and looked most promising for a good crop. Another houseful was not quite so forward. G. H. Crane, scarlet, is another seen in large quantities; Floriana had some good blooms open, this is a soft flesh pink as I saw it, but I think it sometimes has a deeper shade; Queen Louise is the favourite white; Governor Roosevelt and Harry Fenn, deep crimsons; Royalty, a good shade of pink; and Mme. Melba, another good pink. Mr. Dutton has his own special mode of culture, and all the plants are supported by a wire arrangement which he has patented. He finds it on further trial to be entirely satisfactory, and will offer it to the public. It was interesting to note that everything about the houses was in good order, and nothing to create or foster insect life. Mr. Dutton's success mainly depends upon careful attention to keeping the plants perfectly free from all insect pests. The houses are so constructed that side and top air can be given freely, and yet there is a pleasant growing atmosphere.

Mr. J. Surman's nursery, Beckenham.—At this nursery a speciality is made of growing Chrysanthemums for pots, chiefly early varieties. They are planted out in the open quite early in the spring, and remain there until they are well advanced in bud, when they are taken up and potted, the size pots required varying from 5-inch to 7-inch. After potting they are shaded for a few days, and they soon get over being taken up from the ground. Some varieties suffer a little, but mostly they finish off quite as well as if they had been grown in pots. The most remarkable feature of Mr. Surman's plants is the short sturdy growth. The plants are disbudded, and carry from five to nine good blooms. At the time of my visit (October 15), Soliel d'Octobre was at its best. The plants were in 6-inch pots, about 24 feet high, and with from five to seven perfect blooms on each. Ryecroft Glory and Nellie Brown (the bronze sport) were equally good, with more but not such large flowers. Mychett Glory was rather past, but it had been fine; it is very dwarf. The American variety Ivory is grown, the plants being dwarf and sturdy. Souvenir du Petite Ami as

grown here appears to be one of the best whites for pots. *Ma Perfection* is another good white. *Phœbus*: This fine yellow is evidently well adapted to the mode of culture; it was not fully in flower, but looked very promising. *W. Shrimpton*: This was rather tall, but had good blooms. *President Nonin*, bronze, was good, and the old favourite *President Lincoln* is still found useful. It is not all varieties which succeed under this mode of culture, but it is evident that it is a most economic system, when treated as they are at Mr. Surman's, and it is quite evident that Mr. Wright, the manager, knows exactly how to handle them. Other varieties are grown in the ground and taken up for flowering; but these do not call for special mention. The trade for pot plants has been fairly good this season, and those referred to above have made from 12s. to 18s. per dozen, and a few extra good *Soliel d'Octobre* have been making from 2s. 6d. to 3s. 6d. each in Covent Garden Market.

OSTROWSKIA MAGNIFICA.

It is a great pleasure to record a success with this noble Bellflower after years of disappointment. When its big purple flowers were in full beauty it was a pleasure daily to seek its retreat and enjoy the pure colouring of the large blooms, which are just like those of a Bellflower, though conspicuous for their dimensions. The *Ostrowskya* was found by Dr. Regel in East Bokhara, and I find it appreciates a deep and light loam, as the roots go down to a considerable depth. It is not, unfortunately, a plant for everyone, but is one of those good things which it is a delight to succeed with, though success may only come once in three years. V.

GARDENING OF THE WEEK.

INDOOR GARDEN.

POTTING the general collection of *Liliums* (imported bulbs of *L. auratum* excepted) may now be taken in hand, as by this time even the latest of those reserved for the autumn display should be ripened off. If, however, any are found with green unripened stems, allow them to remain in a cool vinery or Peach house for a few weeks to complete the maturing process. Old bulbs must have all the old soil shaken completely away, and also any old roots and stems that have not loosened their hold of the bulbs. Grade the bulbs into three sizes, and on repotting them see that the size of the pots approximates to that of the bulbs, from 10 inches diameter to 6 inches. Use a compost two-thirds fibrous loam broken into rough pieces and one-third leaf-soil with coarse silver sand and rough charcoal sufficient to keep the soil open. Should the loam be very heavy a fourth part of peat may be added; if the soil is too dry a watering through a fine-rosed pot may be given previous to the final mixing. The pots must be clean and well drained; place a little of the roughest compost immediately over the drainage, then half fill the pots with soil which must be made moderately firm. Sprinkle a handful or two of sand over the soil, on which place the bulbs; five or seven bulbs must be placed in each pot, according to their size and the variety, and they must be covered with soil pressed firmly amongst them, leaving nearly one-third of the depth of the pot for top-dressing as growth is being made. After potting, the pots may be placed in a cold pit or under the stage in a cold house, and plunged in leaves or fibre, covering the bulbs with the latter or leaf-soil. The less robust varieties are safer in pots of 6 inches or 7 inches diameter.

HIPPEASTRUMS.

Where it is of more importance to have a portion of the plants in flower early than to have a grand display in April or May a few dozens may now be selected that are showing the flower-spikes, which, if placed in a gentle heat of about 60°, will

gradually develop the flowers at a season when they cannot fail to be appreciated. The general collection may be examined, and a little water given to any bulbs that are shrivelling.

MIGNONETTE

in 5-inch pots must have a light airy position on a shelf in a cool house, and will be benefited by every gleam of sun that may reach it. As the pots become filled with roots a little clear manure water should be given. A selection from the earliest batch may be allowed to develop their flowers between this time and Christmas; on the later batches the flowers must be removed for some time.

HUMEA ELEGANS

that are well rooted should have a size or two larger pot given them; loam, old Mushroom-bed manure, and sand, with a little rough charcoal, will grow these plants well. A situation on a shelf in a light cool house some 3 feet from the glass, and where they will not be likely to become too wet at the root, will suit them for the winter.

J. JAKES.

FRUIT GARDEN

CHERRIES.

If the trees in the early house from which ripe fruit is expected early in May have not been pruned and cleansed ready for starting, this operation must not be delayed. Old-established trees which have filled their allotted space do not as a rule make much young wood, consequently there will now be very little to remove, but good service may be done by thinning out the old spurs and cutting away barren branches where they can be spared to make room for younger growths. If the trees have had full exposure to autumnal rains the borders will be wet enough for the present, but otherwise make repeated waterings until the soil is thoroughly moistened. Remove all old mulching and inert surface soil, and replace with good, fresh, friable loam and lime rubble if the trees are young and vigorous, and add 2 inches or 3 inches of rotten manure where they are old and require rich stimulants from the outset. Where Plums occupy a portion of the house the same careful thinning of the spurs, cleansing, and dressing will apply, and the crop will come on very well under the same conditions as to syringing, watering, and temperature, but the Plum being more tardy in its later stages the trees should be conveniently arranged for syringing, when the application of water would be highly injurious to the Cherries, or, better still, they might be grown in pots or tubs, as they could then be removed to another house to finish, when a dry atmosphere becomes indispensable to the proper ripening and preservation of the Cherries. To carry on the successful forcing of Cherries, a few healthy trees, including such kinds as *May Duke*, *Black Circassian*, *Governor Wood*, and *Bigarreau Napoleon*, should be kept against a reserve wall, where by means of annual lifting and replanting in pure loam they can be maintained in a fit state for



OSTROWSKIA MAGNIFICA.

removal to the houses at any time after the fruit is gathered, with the certainty of their giving a full crop the following season.

POT PEACHES.

Where the first Peaches and Nectarines are obtained from trees in pots, such as *Abec*, *Early Grosse Mignonne*, *Hale's Early*, and *Alexander Peaches*, *Lord Napier* and *Stanwick Elruge* Nectarines should now be taken into the house and placed on the bed or pedestals if fermenting material is to be used for exciting them into growth. Avoid the use of fire-heat at first unless the night heat falls below 40°, and then apply it through the early part of the day, when air can be admitted and the trees syringed with tepid water to help the buds forward. Pay particular attention to the roots, as stone fruit trees are often ruined for the season by being allowed to suffer from want of water. Always apply it at a temperature exceeding that of the house. Wash the trees with soap and water either before or after they are taken in, top-dress with well-rotted manure, and thin the flower-buds if the trees are so thickly set that the flowering is likely to weaken them.

Madresfield Court.

WILLIAM CRUMP.

FLOWER GARDEN.

MULCHING.

THE present autumn much resembles that of 1894, and should such a hard winter follow many things that commonly rank as hardy plants will suffer materially unless mulching is attended to before

the frost has a chance to penetrate deeply into the ground. Partially decayed leaves answer the purpose of a mulch fairly well, but should only be used in sheltered situations, as this material dries quickly in the open, and with the first high wind is apt to be blown in all directions. An excellent material will be obtained from a heap that has been built up of stable litter, garden refuse and leaves, and allowed to heat sufficiently to kill insects without getting dry to an extent that will destroy its nutritive properties. Among the plants to be treated are the tuberous and fibrous-rooted *Tropaeolums*, Sweet-scented Tobacco, clumps of outdoor *Fuchsias*, *Montbretias*, *Gypsophila*, *Lobelia cardinalis*, and *Lobelia fulgens*, indeed anything that suffers from severe frost.

HEDGE BRIARS.

Briars for budding next year should now be planted without delay. Trim and plant the same day as they are taken from the hedgerows if possible. When trimming be careful to leave on every bit of fibrous root, and only reduce the stumpy part. A few tall Briars should be planted where they are to remain, and if budded with some of the charming *wichuraiana* hybrids will make a most interesting feature in the garden.

CHRISTMAS ROSES.

Everything that can should now be done to keep the foliage fresh and strong, for only when this is done will the bloom be full and abundant. Generally these plants do best in the shade and where the soil is deep and retentive. I have often seen them growing and blooming well in front of a north border, at the back of which were shrubs and trees; now they are most interesting, and if protected a little from frost will give abundance of bloom for at least two months. A few handlights with tops to lift off are the best of all covers for individual outdoor plants, but when planted in quantity of course a frame covering is best. A few plants kept in large pots, tubs, or boxes, and then carried into the greenhouse, are very useful.

WALL CLIMBERS.

Many of these have this season made the most unwieldy growth. These should now be overhauled and all superfluous growth cut away to relieve these plants of some of their weight and to prevent them becoming blown away from their fastenings. Some of the weak and all the useless wood should be cut out. Ivies will now want attention; some of these have now reached their limit in height. When such is the case these should be trimmed in a little, as there is danger of sudden squalls stripping the clinging roots from the walls and causing a very unsightly appearance for a considerable time.

T. B. FIELD.

Ashwellthorpe Hall Gardens, Norwich.

KITCHEN GARDEN.

JERUSALEM ARTICHOKE.

THE tubers are now fit for use, and the fast decaying stems may be cut down to within 1 foot of the ground and burnt. No more should be lifted than are required for immediate use, as this vegetable retains its properties best when left in the ground where grown until the new year. Some rough litter should be laid upon part of the crop when severe frosts are imminent, there will then be no difficulty in lifting the tubers through the soil being frozen hard.

CAULIFLOWER PLANTS.

Those being wintered in hand-lights, frames, or in pots must be kept as sturdy as possible by admitting abundance of air, not only on fine days, but when the nights are mild the lights may be left off with advantage. Heavy rains and snow should not be allowed to fall upon them, and a close watch must be kept for caterpillars and slugs.

BROAD BEANS.

The old method of sowing these in November for the earliest supply of pods next year is not nearly so much practised as it was a few years ago. Many gardeners now raise the plants by sowing seed under glass in February, and after hardening them transplant on a warm border when the

severest weather is over. This system has many advantages over the other, chief among them being that there is not the risk of losing so many plants through the ravages of mice and other depredators.

LETTUCE.

The autumn-sown plants are very forward owing to the continued mild weather, and it is to be feared they will not pass through the winter, if severe, without many losses. A batch of plants may be raised from seed sown under glass in February, and duly hardened off before transplanting in the open. These will be useful for filling gaps and to augment the supply of plants for an early supply of good Lettuce. Large plants that were brought into frames or pits from outside for winter use will require careful treatment from now onwards. Abundance of air and a tolerably dry atmosphere about them is what they now require to prevent decay of the young sappy leaves. By wetting the leaves or heart of the plant will cause decay.

ENDIVE.

This useful salad plant has damped off in the young leaves this year, which may be attributed to excessive moisture. They have, however, grown strongly, and possibly in some districts and in certain soils and positions this has not been so prevalent as in our own garden and neighbourhood. The curled variety has suffered the most, and whole breadths have been spoiled.

CHICORY.

This is an indispensable adjunct to the salad bowl in winter, and a regular supply of blanched heads must be maintained by introducing a few roots every ten days into warmth. Large quantities are not usually required at once, and half a dozen roots potted into a 14-inch pot and placed in the Mushroom or forcing-house with another pot of the same size placed on top will suffice for ordinary requirements.

Stoneleigh Abbey Gardens.

H. T. MARTIN.

CHRYSANTHEMUMS.

THE shows of 1903 are now practically over, and on the whole the flowers have been wonderfully good, far better than one could have expected after the very unfavourable weather we experienced whilst they were developing. In nearly all cases the flowers, though in many instances large and brightly coloured, lacked that crispness which is so much desired in exhibition, consequently their season has been a very short one. The interest taken by the public in the Chrysanthemum is perhaps as keen as ever, not only at our exhibitions where competition is the centre of interest, but also in our public parks and gardens, and in private gardens the Autumn Queen finds many admirers. The ever-increasing number of new varieties has much to do with this, and the new departures, by way of arranging and exhibiting both plants and cut flowers at our annual shows, evokes fresh interest and enthusiasm, and from an educational point of view a representative Chrysanthemum exhibition is invaluable even to those who never exhibit. The taste displayed in the arrangement of many of the table decorations, vases, bouquets, &c., are alone worthy of inspection.

PLANTS AFTER FLOWERING.

The management of plants for producing a stock for next year demands careful attention, as a good start with healthy cuttings is of the utmost importance, and goes a long way to ensure success. Immediately the blooms are past they should be cut down to within 1 foot of the soil, after which place them in quite a cool house or cold frame, the former for preference. Thoroughly fumigate the plants, as generally the young growths are badly infested with aphids. Endeavour to encourage a stout, clean, sturdy growth, arranging the varieties together to save time and trouble, and as near the glass as possible. In the case of new and scarce varieties every cutting should be carefully looked after, and when the stock is required to be increased as speedily as possible these may be placed in a warmer house, and every bit of the stem be preserved. If these are turned out and laid in Cocosnut fibre, burying the whole of the

stem, and kept moist, they will break from every eye. When it is the wish to excel in plant culture in the production of specimens, either dwarf, trained pyramids, or standards, it is necessary to make an early start, and any time after this date the strongest cuttings should be selected and placed singly in 2½-inch pots, standing them in a gentle heat under hand-lights. Immediately these are rooted they should be potted on into 3-inch pots and placed on shelves in an intermediate temperature.

NEW VARIETIES.

Notes will have been made of all the most promising novelties, and these should be ordered from the respective firms who are sending them out as early as possible; and here it will be well to mention that, instead of ordering everything which is supposed to be new, it will be far better to have a few of the very best varieties rather than depend on single plants of each. Late-flowering bush plants will need to be kept as cool and airy as possible, and apply weak manure water every watering. Fumigate often to free them of all insect life. I fear there will be much difficulty in retarding them as late as usual, for, like the earlier varieties, owing to the unripened condition of the wood the buds are swelling and the flowers expanding very quickly.

E. BECKETT.

Aldenham House Gardens, Elstree.

ORCHIDS.

SCHOMBURGKIAS.

At the present time this genus appears to be somewhat neglected. This may be due to the plants being shy bloomers and so seldom seen. The Schomburgkias are strong-growing epiphytal Orchids closely allied to *Lælia*. The pseudo-bulbs are either fusiform, somewhat resembling those of some of the species of *Lælia*, or nearly cylindrical, tapering upwards and hollow, and bearing thick, leathery leaves. The flowers are borne at the apex of long, usually arching scapes, which issue from the apex of the bulb. The following are the better-known species, which bloom in the early spring and summer months, excepting the first-named, which blooms in winter:

S. crispa.—This has the sepals and petals brown, shaded with yellow; lip whitish or shaded with rose.

S. Lyonsii.—The sepals and petals are white, thickly marked and spotted with purple; lip white, sparsely purple spotted and edged with yellow.

S. rosea.—The sepals and petals of this are wavy and dull reddish purple in colour, the lip purplish rose, with three white keels on the disc.

S. sanderiana.—The flowers of this are rosy purple, the mid-lobe of the lip veined centrally with deeper rose-purple.

S. Tibicinis.—The sepals and narrower petals are wavy and reddish or purplish brown, the lip three-lobed, with erect edges, orange-yellow; lip whitish, shading to purple on the margins; disc yellow.

S. undulata.—This has purplish brown sepals and petals; the side lobes of the lip are pale rose, mid-lobe purple, disc white, with five longitudinal ridges.

Schomburgkias require a moderate amount of heat and moisture both at the root and in the atmosphere throughout their growing season, with plenty of light. During this period they are best grown in a light position at the warmest part of the Cattleya house. When growth is completed they should be removed to the coolest end or placed with the Mexican *Lælias*, where they may have a cooler temperature, a drier atmosphere, and the full benefit of the sunlight, shading only to prevent the leaves scorching. When resting little water is needed to keep them plump and healthy, especially those with cylindrical pseudo-bulbs.

Repotting should be done when growth begins or when new roots issue from the base of the growths. The compost should consist of equal proportions of peat and sphagnum, with a fifth part of leaf-mould, mixing the whole well together and pressing the same moderately firm.

The plants should be continually propagated. Just before or when the plants begin to grow, if

they have five or six bulbs, sever the rhizome behind the second bulb, and treat them the same as is frequently recommended for *Cattleyas*. If the plants are allowed to grow on with a great number of pseudo-bulbs to one lead it is too much to be supported by the roots from it, and the plants in consequence deteriorate. This is especially applicable to those having cylindrical pseudo-bulbs.

F. W. THURGOOD.

Rosslyn Gardens, Stamford Hill, N.

THE BLUE NYMPHÆAS.

INTRODUCTORY.—The blue *Nymphæas* are not in any sense new introductions to our gardens. I note that *N. scutifolia* was introduced in 1792 from the Cape of Good Hope, and *N. stellata* from Tropical Africa in 1812, whilst *N. gigantea* is recorded as having been sent home from Australia in 1852.* Within the past few years more attention has been devoted to their cultivation. This may, in some measure no doubt, be attributed to the greater amount of attention bestowed upon the genus generally since the advent of the remarkable

within the reach of the many than would otherwise be the case.

CULTIVATION.

The tanks.—Under this head I propose to simply record my own experience, which has now extended over about six seasons. We started by building a small tank to accommodate them (size 6 feet by 8 feet, or thereabouts). In this tank provision was made for warming the water up to 75° or 80° by means of hot-water pipes connected to the service of a house adjoining. This arrangement has worked well and given no trouble. The tank was covered over by a movable three-quarter span frame so as to afford protection from the time of planting the Lilies out until well established, when it was taken away, and the tank then became an open-air structure with the water warmed as already noted. For two seasons we grew what is known as the Berlin variety of *N. stellata* under these conditions and flowered it most successfully. Being desirous of extending its culture and of adding other varieties two more tanks were built. These were each 6 feet wide and 32 feet long, being covered with span-roof frames having lifting lights on either side. As in the first erection,

I surmise by the length of the petiole, or leaf-stalk, of most of these blue varieties that in their native habitats the depth of water is much greater; but I do not consider it is necessary beyond what I have indicated. The greater the body of water, the greater the pressure and the tendency to leakage in the tank.

The soil, &c.—Since we have grown these Lilies we have experimented with various composts, but I have come to the conclusion that nothing is so good and so safe for their well being as turfy loam, leaves of the previous season, and road grit. We have tried manure, first that from the cowyard and then from the stables; but neither is, in my opinion, satisfactory or really essential. For the future I shall adhere to my first season's choice, which was as above quoted and recommended. I like the soil to be prepared and put into the tanks in a similar condition to that in which we use our soils for fruit borders, &c., i.e., in a good working condition. By this means it can be made sufficiently firm without being rendered adhesive. Upon the bottom of the tanks we place rough rubble—broken brick-bats or clinkers to act as drainage. I would not in any case

place the soil directly upon the bottom, any more than I would pot plants without any drainage, and for the same reason. This drainage is about 4 inches in thickness, and upon it is placed a layer of rough turf, then a layer of leaves (preferably those of the Oak or the Beech). Upon this come the finer leaves and road grit into which the plants are turned out from pots, and the water is immediately admitted, slowly at first, in order not to chill the plants. Why we keep the leaves covered is to prevent their floating, which for a time they would do, and that to the detriment of the plants. Of course under natural conditions the leaves that settle upon the surface of the water and eventually afford a food for plant life therein sink during the dormant season of the plants. When the Lilies are planted, some clean gravel stones are placed around each one in order to keep it firm and to prevent any tendency to float to such an extent as to lift the tubers from their position. For a time after planting there is nearly always a light scum that rises from the soil to the surface: this vegetable growth or "conservæ" should be skimmed off every few days. Presumably this is occasioned by the warming of the water whereby its growth is fostered. It is possible, I think, that this may arise from the kind of water in use and not directly from the soil.

Preparing the Plants.—Unlike the hardy *Nymphæas* which remain from year to year in the water, and in the same soil, too, even if in tubs or in fountains, with a possible addition of soil thereto in the spring, these and other tropical *Nymphæas* succeed much better if replanted every spring. About the end of January we make it a rule to lift all of our stock, and then take that opportunity for a thorough cleansing of the tanks. The tubers are put into pots for restarting into growth and are then kept in a warm house, where the water will maintain a temperature of about 70°. With one exception this is done at once. That exception is the Berlin variety of *N. stellata*, which I find can be treated to a resting period. This Water Lily always loses its roots completely every winter—at least that is my experience of it at Gunnersbury. We keep the tubers of this variety in either sand or cocoa fibre for three or four weeks. Then when potted and again placed in water fresh growth commences at once and increases with wonderful rapidity. It is not often that an old tuber will restart kindly, i.e., such a one as flowered profusely the previous year. The offsets, however, make strong plants; all that one could wish in fact. It is upon these that we rely for our renewal of stock. A strong plant will usually make two such offsets during the growing



BLUE NYMPHÆAS AT GUNNERSBURY.

hybrids raised by M. Latour-Marliac and others. These are, however, of quite a different character and constitution from the blue species and varieties. I do not think in any case that success has resulted so far in obtaining a blue *Nymphæa* which may in any true sense be termed hardy in this country. They may, it is quite true, be grown out of doors during the summer months in favourable localities and under advantageous conditions, but this fact does not give to them any claim to be considered hardy. They are beyond any doubt, however, of much easier cultivation than was at one time deemed to be the case. It has been the association with huge tropical tanks and extremely high temperatures during the growing season that has militated against their becoming more popular. Such, for instance, as the conditions under which the *Victoria regia* is grown have been thought to be essential. Such conditions, however, are not at all necessary, nor is it requisite to have houses in which to grow them. By dispensing with costly erections the question of cultivation at once becomes more

pipings was provided for warming the water, the pipes being placed around the sides and resting upon the set-off of the wall forming the tank 9 inches below the surface of the water. These tanks are all 18 inches deep, the brickwork being 9 inches in thickness below the ground level, whilst the upper part of it is 4½ inches thick. To this is added, of course, the usual rendering in cement to ensure the tanks being water-tight. Means in each case are provided for draining the tanks dry for cleansing purposes. If I were again building tanks for these Lilies I should only make one alteration, viz., I should provide for a depth, at least, of 2 feet of water, but preferably 2 feet 6 inches. I recommend this because of the very vigorous growth of these Blue *Nymphæas*, and in order to better cover the crown of the plant to a greater depth. We do not now take off the lights of the larger tanks because we find that the Lilies become too much exposed to the force of high winds, so much so in fact as to force the leaves out of the water on to the pathway adjoining, otherwise we should continue to do so. The smaller tank is now more frequently used for experimental purposes, or for what are considered delicate or tender varieties.

* Vide "Dictionary of Gardening" (Nicholson).

season. I think on the whole these remarks apply not only to the Berlin variety of *N. stellata*, but also to what is known as *N. zanzibariensis*, which is only another form of *N. stellata*. On the other hand that newer variety, whatever its origin may be, and no doubt that too is a form of *N. stellata* or a cross with another species—*N. pulcherrima* is that to which I now refer—is quite an evergreen Lily, keeping its roots, and hence some, if only a few, of its leaves during the winter season in tact. This variety can be divided in a similar way in the spring, but it does not at once start off into such a rampant growth. We increase *N. gigantea* also from its young tubers; but when a pod of seed can be secured—well ripened—that is a better method still. Then from germination until the flowering stage is reached the growth never ceases, but increases in rapidity and vigour.

JAMES HUDSON, V.M.H.

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(To be continued.)

NURSERY GARDENS.

MESSRS. S. SPOONER AND SONS,
HOUNSLOW.

WE are often told that this is an age of specialists, and there is much truth in the remark. To attain success in almost any branch of industry it is necessary more or less to specialise.

Messrs. Spooner and Sons are nurserymen specialists. Instead of cultivating a miscellaneous stock of trees and shrubs, herbaceous plants, alpine, and Orchids, as can only be satisfactorily carried out in the largest establishments, they have very wisely devoted themselves to the culture of fruit trees and Roses, the former being the more important item. When one's attention and skill are centred upon the culture of a certain class of plants, it follows almost as a matter of course that they will be better specimens of their kind than one would expect to be produced by a man who divides his time and labour among several kinds of plants, and such proves to be the case in the Hounslow nurseries. The soil is undoubtedly well suited to the culture of fruit trees, and that may partly account for

THEIR EXTRAORDINARY VIGOUR,

but it cannot be doubted that the undivided skill and attention of the specialist also has much to do with their healthy appearance. The plots of ground covered with

MAIDEN APPLE TREES,

close together and in the straightest of rows, just before the frost came that has caused the leaves to fall, made a picture that everyone who delights in seeing evidence of good and skilled culture would acknowledge most satisfactory and altogether pleasing. Such varieties as Allington Pippin, Bramley's Seedling, Worcester Pearmain, and Newton Wonder, each filling its own particular plot of ground, are the picture of health and bearing an abundance of sturdy, vigorous foliage, although the habit of varieties differs; some are tall, others dwarf, and some are more slender than others. All are in rude health, as their strong, rich green leaves unmistakably testify. Messrs. Spooner supply fruit trees largely to market growers as well as to those who garden for pleasure, and it goes without saying that the man who grows fruit for market must have the very best trees that he can procure, and that Messrs. Spooner have long retained the confidence of such men speaks well for the trees supplied. Messrs. Spooner grow a great number of maiden fruit trees—that is, fruit trees which have made one year's growth since they were grafted or budded. By purchasing such growers can train their trees in the manner best suited to their own convenience. Many, however, prefer to purchase their trees already partly developed, and for this reason Messrs. Spooner also grow bushes, pyramids, half standards, standards, and trained fruit trees.

HALF STANDARDS

are very largely grown here, and we should say that it is a form of tree that is rapidly increasing in popularity. There is a splendid stock of half standard Plums in the Hounslow nurseries, and particularly of the variety Victoria there are many thousands of them. Standard, half standard, pyramid, bush, and maiden Pears and Plums are largely grown also, while of Cherries there is a large stock of standards, half standards, and maidens. Dwarf trained and maiden Peach and Nectarine trees and Apricots are also to be seen in Messrs. Spooner's nurseries, while another special feature are the Cob Nuts and Filberts, standard Walnuts, and Red, Black, and White Currants.

AMONG ROSES

dwarfs are most largely grown, and the best varieties of Hybrid Perpetuals, Teas, and Hybrid Teas are represented. Of climbing Roses the Hounslow nurseries contain a large stock. We must also not forget to mention among shrubs and conifers standard Laburnums, standard Limes, and the Spruce Fir, large quantities of the latter being grown for use as Christmas trees. For hedge planting Messrs. Spooner cultivate such plants as the Cherry Plum and the oval-leaved Privet. In addition to these nurseries at Whitton Dean, not more than five minutes' walk from Hounslow Station on the London and South-Western Railway, Messrs. Spooner and Sons also have nurseries at Wellington Road, Hounslow, where the undivided attention and directed skill ensure the same good results, the same healthy and vigorous plants as at the home nursery.

CHRYSANTHEMUMS AT EXMOUTH.

MR. W. GODFREY's collection has been hard drawn on for the various exhibitions; nevertheless, there are several hundred blooms of the famous French variety *F. S. Vallis*, which was so well shown last year by Mr. Godfrey, and extensively, too. It received a first-class certificate at Edinburgh last season, and to blooms exhibited by Mr. Godfrey the award of merit was given by the Royal Horticultural Society. Exmouth novelties are much grown, as may be expected, the best being *Bessie Godfrey*, *Sensation*, *Godfrey's Pride*, *E. Hayman*, *Loveliness*, *Exmouth Crimson*, and *Godfrey's King*. Of last year's novelties *Exmouth Rival* is very prominent, and is certainly the best formed and richest crimson Japanese yet introduced. Colonel Wealter is an improved *Edith Tabor*, being bolder and of richer colour. *Britannica* is a very rich golden yellow, whilst *Glory of Devon*, one of the very largest, is amber-yellow, flushed with rosy carmine.

Incurveds are not anything like so extensively grown, but Mrs. J. P. Bryce, a variety cultivated this year by the National Chrysanthemum Society, is of large size and the purest white. The *Captain* is a bronzy buff, and *Devonshire Hero* is a fine addition to the deep golden-yellows in this section. There are some splendid blooms of the Japanese varieties, some of the finest being *Mrs. Vallis*, rich bronze, overlaid with copper-crimson; *Terra-cotta* promises to be one of the best dwarf-growing varieties; *Mme. C. Nagelmaekers* will prove popular as a white variety; *Miss Mildred Ware* is best described as a glorified *Lady Hanham*; *Durban's Pride* is very distinct in form and colour. The florets are very prettily twisted, and of a charming mauve tint. Some of the finest flowers are certainly *Ethel Fitzroy*, and this may safely be considered one of the best twelve Japanese. *Lord Hopetoun* is very brilliant, but lacks size. There are large batches of seedlings on trial, and houses full of plants of the useful decorative varieties.

PEAR CONFERENCE.

Few Pears are more handsome than this one of the late Mr. Rivers' seedlings. I know of no variety that fruits more freely; with us it rarely fails to crop. It is certainly one of the best of the newly introduced Pears. We find it valuable for earliness, for when grown on a low south wall the fruits are ready early in October. As regards quality, this variety is not so good as *Doyenné du Comice*, but the flesh is melting, juicy, and sweet. The tree grows freely in any form. It has been said that we have sufficient Pears, but surely we do not want to stop raising new fruits because there is a long list of old ones. *Conference Pear* has its special place, and it is a distinct acquisition. We have grown and known its worth in October. G. W.



PEAR CONFERENCE. (Two-thirds natural size.)

THE FERN GARDEN.

BRITISH FERNS.

RECENTLY taking a tram ride through the western suburbs of London it occurred to us to take note of the hardy Ferns which we saw in the front gardens, with the result that eight gardens out of ten displayed them to a greater or less extent. We must have seen some scores of gardens during the run, and yet in not a single instance could we detect a variety, and in very few instances could we see anything else but the common Male Fern. These in many instances, when under the shade of the houses or other similar protection, were fine, robust, and healthy plants. To those who are acquainted with the far more beautiful and yet as easily grown forms which represent British Ferns in the connoisseur's eyes, this general use of what such connoisseur regards as weeds is simply ridiculous, and we know of no parallel among other classes of garden plants. Every other class has been selected and developed, not merely by amateurs but by nurserymen, and so far as the purchaser's means or taste permit, the best forms attainable are utilised. To take a flower which may be found wild in native habitats, say the Heart's-ease, we never find this in its small wild form in gardens, but only the highly-developed Pansies and Violas. To find there hundreds of the common Male Fern occupying congenial ground in gardens, and never a specimen of the many beautiful tasselled and otherwise ornate varieties, is precisely the same as if the owner of the garden filled it with wild Heart's-ease and ignored the far more beautiful Pansies and Violas altogether. Surely for mere variety's sake the better ones should be utilised; scores of plants, all counterparts of each other, can never be so interesting as so many different ones. The absurdity of ignoring not merely the varietal forms, but also most of the species available for garden culture, is further emphasised by the fact that they, unlike the more delicate cultivated Pansies, demand, as a rule, no more care than the wild weeds, or if they do it is merely a question of a little more shelter from wind and sun when their structure, not their constitution, is frailer and demands it. Nor is it a question of great expense to acquire these beautiful forms. Despite the general apathy of the nurserymen, a few there are who supply these plants at very low prices, not perhaps on the penny a root basis of the street hawker who vandalises, directly or indirectly, our pretty Ferny districts, or the penny a dozen basis of the village dweller who roots up the seedlings and sends them post free, but yet a great number of the most attractive can be obtained for a few pence or a shilling each at the outside. Add to this that a Fern is practically immortal, since though it may die down to the ground in the autumn, it springs up year after year and decade after decade with renewed vigour in the spring, a veritable fountain of delicate greenery, and if of the right kind a miracle of tassels and plumes, and infinitely more beautiful than the weed form. Then, too, they multiply freely by offsets and secondary crowns, and if a little care be taken they can be raised from their spores with the additional charm of probable further variation, involving the gift of new forms to fortunate raisers. Nor is it merely in the garden that these should appear; there are thousands of greenhouses and conservatories which are so situated as to be too much shaded for flowers to thrive, while heating them during the winter is for many people a troublesome and risky process, to say nothing of expense. These are usually occupied by more or less languishing flowers, requiring frequent renewal, or else by exotic Ferns which require heat in the winter. Such positions, however, are exactly adapted for collections of such hardy British Ferns as are so finely cut or densely tasselled that they are apt to get broken by heavy rain in the open or damaged by the wind. Some of the best Ferns are quite evergreen, such as the Shield Fern, Hard Male Fern, the Blechnums, common Polypody, Hart's-tongues, and Spleenworts, to say nothing of the exquisitely beautiful

Filmy Ferns, Hymenophyllums, and Trichomanes radicans, which can be grown to perfection in Wardian cases or bell-glasses or frames under such conditions of shade and shelter as such houses present.

Here then is a hobby which any amateur can pursue to advantage, and which would be found of absolutely inexhaustible interest; while even if the culture of these Ferns be not made a hobby, there are thousands of shady positions in which collections would take care of themselves and be infinitely preferable to that absurd adoption and repetition of the common types which are so general. Out of forty odd species practically popular knowledge embraces about half a dozen at the outside, viz., the Male Fern, Lady Fern, Shield Fern, Hart's-tongue, Broad Buckler Fern, and the Royal Fern, to which here and there may be added the common Polypody of each of these species, to say nothing of the others; there are scores or hundreds of quite different forms, many so different and so much more beautiful than the normal that it is really difficult for the beginner to believe the fact that they all came from wild found "sports" from the common types. A whole garden could be filled for instance with Hart's-tongues, of which no two plants should be alike in make. The common Polypody would fill a decent-sized greenhouse with its varieties if well grown, while the Lady Ferns and Shield Ferns are practically innumerable. Furthermore they have varied in size, so that both dwarfs and giants are available according to space. A full grown Lady Fern of the finest type is before us as we write, over 5 feet high and at least 6 feet through, and on a shelf near by there is a score or two of dwarfs of the same species with ample room in half the space. Yet with all this variety available, the great mass of garden lovers stick to the weed forms, and regard British Ferns as mere stop-gaps where nothing else will grow. Could anything be more ridiculous?

C. T. DRURY, F.L.S., V.M.H.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

BROWALLIA SPECIOSA MAJOR.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Doubtless there are some who are unacquainted with the merits of this beautiful species of Browallia for growing and intermixing with other flowering plants in the stove or warm-flowering house through the winter months; if so, they will find it a most desirable plant to grow. It is particularly so to those who grow batches of winter-flowering Begonias for decorative use. Begonia Gloire de Lorraine and this Browallia harmonise well, and make a pretty combination and a very effective display through the dull months of the year. The flowers of this variety are much larger than those of the type. They have also the additional value of being useful when cut—an all-important point in winter-flowering plants. For that reason, perhaps, its value should be more appreciated than that of the Begonia named. It is of easy cultivation. The best soil is an open sandy loam. This is a much better plant to grow for winter flowering than B. elata, being freer and more lasting in flower.

To have good plants for winter decoration secure strong healthy bushy specimens, otherwise the production of flowers and the effect is not so good. To obtain them cuttings should be struck in the spring or early summer months; these can be readily obtained from old plants that have been cut back after flowering, a month or two previous to the cuttings being required. When these are from 1 inch to 2 inches long they should be inserted in pots of light sandy soil, and placed in a propagating case till rooted, after which they should be placed out for a time and then potted off, kept in a warm house, and shaded for a few days till established. As they obtain roothold and commence to grow they should be removed to a pit

in which they can obtain plenty of light. For a time each afternoon close the pit after syringing, which will induce growth and help to keep down insects. Potting, watering, and pinching should be closely attended to till about September, by which time the plants should be removed to warmer quarters, where they may be allowed to come into flower if required at that time. Under such treatment good plants from 18 inches to 2 feet high can be readily obtained. From then onwards they will well reward the grower for the time and attention bestowed on them.

Sidbury.

R. BARTON.

WHITE PHLOXES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It is obvious that "E. M.," in his note at page 206, values these things from a very different standpoint to myself. I am not sure that I know or have ever seen Tapis Blanc or Mathilde Sero, both of which are cited as only 15 inches high. Probably this estimate of their height is only obtained by a short experience of the varieties mentioned, for I have never yet seen any variety of herbaceous Phlox when established to be so dwarf. Spring cuttings and spring-planted stock of endless varieties will be no more than 1½ feet at their first flowering, but in the next season the plants will at least double it, and only reach their greatest height in the third or fourth year. Now I regard this section of the Phlox as a decorative garden plant, and I do not measure its garden value by the size of the individual pipe, but rather by its good development and effect for decoration. This is what I claimed for Mrs. E. H. Jenkins I believe in my original note. But when growing such things for exhibition I have readily produced heads of bloom of the last-named 18 inches through with pipe the size of a crown piece. It is also a fact well known to nurserymen that Sylphide is a failure in many localities, and the above content in average soils. No less an authority than Mr. Amos Perry regards Mrs. E. H. Jenkins as *par excellence* on the same principles as I have laid down. Virgo Marie, with Jeanne d'Arc, &c., represent the pyramidal as opposed to the paniculate section of Phloxes.

E. H. J.

SOCIETIES.

EDINBURGH CHRYSANTHEMUM SHOW.

ONCE more quite one of the best of the many magnificent displays of Chrysanthemums that have been seen in the Waverley Market Hall was held on the 19th, 20th and 21st inst. This society—the Scottish Horticultural Association—can lay claim to be the pioneer of the "vase" system of staging Chrysanthemums, and the offering of handsome prizes for that encouragement. This year, too, they have discarded the old-fashioned stands, cups and tubes, and devoted their display entirely to vases, and with capital results. No fewer than 611 vases were required to contain the 1,833 large blooms staged for competition. The association is at all times fortunate in its officers. The president, Mr. McHattie, is too well known to require any comment—only, if possible, he improves. The secretary, Mr. P. Loney, is as assiduous as ever in detail, while the treasurer, Mr. McKinnon, is the right man in the right place.

CUT BLOOMS.

These were marvellously well staged. Japanese: The principal class was that for twenty varieties, three of each, with Chrysanthemum foliage only. Quite handsome are the prizes offered in this particular class. The City Challenge Vase and £10 for the first; £20, £15, and £10 for three remaining prizes. On this occasion five competed, and as the blooms were arranged in tier fashion they made a bold display. The premier award was made in favour of Mr. D. Niccol, gardener to J. M. Bell, Esq., Rossie, Forganenny, which gave much satisfaction, considering how assiduously he has laboured for many years past to attain to that proud position. The blooms were massive and of good colour, possessing all the points of quality. Some of the best varieties were Edith Shrimpton, J. R. Upton, Mrs. G. Lawrence, Mme. Cadbury, Beattie Godfrey, Mrs. J. Bryant, Mrs. Barkley, Lady Conyers, Mrs. F. W. Vallis, Nellie Pockett, Lord Ludlow, Miss A. Byron, and Mme. P. Radaell. Mr. T. Lunt, gardener to Captain Stirling, Keir, Dunblane, was a good second with smaller blooms of high quality, and remarkably fresh. Beattie Godfrey, Miss Elsie Fulton, Mme. Cadbury, and Mrs. E. Hummel were conspicuous for their quality. Mr. J. Belsant, Castle Huntley, was an exceptionally close third with large specimens, some few a trifle stale.

A new class was instituted for growers confined to the municipal area of Edinburgh and Leith. The handsome sums of £15, £10, £7 10s. and £4 were offered for twelve varieties, three of each. It cannot be said the results justified the outlay. Mr. D. Cavanagh, gardener to J. C. Oliver, Esq.,

Murrayfield, secured the premier award with inferior blooms of popular varieties; Mr. J. Fraser, gardener to G. B. Turnbull, Esq., Kilravock, second; Mr. W. Lamont, gardener to the Rev. M. Nair, Brizles, third.

Nine entered the lists for the possession of the Scottish Challenge Cup—a popular class. For twelve varieties, three of each, Mr. W. Nicholson, gardener to G. Whitelaw, Esq., Strathallan Castle, Machan, was an easy first with a very fine set; in fact, equal to any in the show. Of the best were Princess Brancana, fully 9 inches deep; J. R. Upton, rich in colour; Kimberley, Mme. P. Radaelli, and Mafeking Hero. Mr. J. H. Cumming, gardener to Lady Stewart, Grantully Castle, was a good second; Mr. W. J. Norman, gardener to the Earl of Mar and Kellie, Alboa House, third.

AMATEURS AND GARDENERS ONLY.

For six varieties, three of each, Mr. Beisant won with high-class examples of Duchess of Sutherland, Florence Molyneux, Mrs. Mileham, Mme. P. Radaelli, Mrs. Bakley, and Australia. Mr. T. Lunt was a good second, Mr. Niccol third, both staging well.

For six blooms, any one variety, no fewer than thirteen entered, the premier award going to Mr. W. Simpson, gardener to Captain E. G. G. Wemyss, Wemyss Castle, Fife, for magnificent examples of Beattie Godfrey; Mr. D. Kidd, gardener to Lord Elphinstone, Carberry Towers, second, with very good Mrs. Mileham; Mr. R. Kenyon, Woodford, Essex, third.

For twelve distinct in four vases no fewer than fifteen staged, making an attractive display. Mr. Nicholson won with representative examples of popular varieties. Messrs. Niccol and Cumming followed in the order here given.

For the prizes offered by Mr. W. J. Godfrey, Exmouth, for varieties sent out recently by himself, there were few entries and not very good results, Mr. Lunt winning the premier award, followed closely by Mr. R. W. E. Murray, Blackford House, Edinburgh.

For incurved varieties two classes only were provided, and sufficient, too, judging from the results. Mr. J. Boucher, gardener to H. E. Gordon, Esq., Aitkenhead, Cathcart, won for six, any one variety, with neat examples of J. Agate. Mr. J. Martin won for three blooms each of any two varieties, staging medium-sized examples of popular sorts.

What are known as decorative sorts are valued here—and rightly so—along with single-flowered varieties. For three vases, distinct, of the latter, any number of sprays, there was keen competition. Mr. A. Knight, gardener to Sir W. Lawson, M.P., Brayton Castle, Carlisle, was first with Mary Anderson, Miss A. Holden, and Purity. Mr. D. Kidd, with grand bunches also of Edith Pagram, Ilac, was second. Mr. W. Foster, Houghton Hall, Carlisle, third.

In the decorative class the competition was keen also. Mr. Macgregor, gardener to R. H. Elliott, Esq., Clifton Park, was first with such sterling varieties for the purpose as La Triomphante and its yellow sport. Mr. J. Holmes, gardener to Mrs. H. Ogilvy, Winton Castle, was second; and Mr. T. Baird, gardener to J. T. Younger, Esq., Awbrae, Cambus, third.

Much encouragement is given to the introduction of new varieties. A silver medal is awarded to the first and a bronze medal to the second. On this occasion the premier grant was made to Mr. R. W. E. Murray for a chaste bloom of Lady Cranston, a flushed pink sport from Mrs. Bakley, of much grace. To Messrs. Wells and Co., Earlswood, the second award went for a Japanese, Dora Stevens, a rose terracotta bloom of fair size and good build.

The premier bloom in the show was an excellent one of Miss E. Fulton belonging to Mr. Lunt.

Amateurs staged remarkably well in the classes set apart for this section. Mr. J. Stewart, jun., winning in several classes. Bouquets, baskets, &c., were all well displayed. Plants were a distinct advance on last year. Mr. J. Pulman, gardener to D. P. Hule, Esq., Hollywood, Colinton Road, won several prizes, as also did Mr. W. J. Michie, gardener to Sir J. Steel, Boroughfield, for Japanese and Pompons.

Messrs. Todd and Co., florists, Edinburgh, had the only display of floral work in the class set apart for that branch; they worthily upheld their high reputation and secured the premier prize of £20.

The trade exhibits were numerous. Gold medals were awarded to Messrs. Sutton, Reading, for vegetables; to Mr. G. Bunyard, Maldenstone, for Apples; and to Mr. Whytlock, gardener to the Duke of Buccleugh, Dalkeith, for fruit. Silver medals went to Messrs. R. B. Laird and Sons for stove and greenhouse plants; to Mr. W. J. Godfrey, Exmouth, for Chrysanthemums; and to Messrs. Wells and Co., Earlswood, for a similar display.

YORK.

In the Exhibition Building the annual show was held on the 18th, 19th, and 20th inst., and was in every way a success. Cut blooms were excellent. Groups of miscellaneous plants receive much encouragement, and naturally are of high merit. The decorative Chrysanthemums, apart from the large show blooms, are perhaps better seen here than anywhere, both in vases, baskets, and bouquets. Fruit and vegetables, too, are always here in great number, and of the best quality. The management is quite of the best, under the skilful guidance of the secretary, ably backed up by an enthusiastic committee.

CUT BLOOMS.

These were numerous and good. The principal class was that for thirty-six, half incurved and the remainder Japanese. Four competed for the handsome prizes offered. Mr. W. Higgs, gardener to J. B. Hankey, Esq., Fetcham Park, Leatherhead, was an easy first by the superiority of the incurved blooms, which were truly magnificent, the best being Duchess of Fife, Mrs. Judson, Mrs. B. Hankey, Frank Hammond, and W. Higgs. The Japanese were not quite so heavy as in some stands, but were bright and well staged. Beattie Godfrey, Godfrey's Pride, Mrs. J. Lewis, W. R. Church, Lord Ludlow, Mafeking Hero, Mme. P. Radaelli, George Penfold, and Mrs. Hummel were the leading varieties. Mr. J. Folkard, gardener to Lady Walker, Sand

Hutton, York, was a good second, with very fine Japanese, smaller incurved. Mr. W. Mease, gardener to A. Tate, Esq., Downside, Leatherhead, a good third.

For eighteen incurved, Mr. Higgs again took the lead with shapely blooms of such sorts as Comtesse d'Etolle, May Phillips, Frank Hammond, Jalene, and Mrs. Judson. Mr. Mease second; Mr. McPherson, gardener to Lord Lodesborough, Market Weighton, third. For twelve incurved Mr. McPherson won with an even set of blooms. Hanwell Glory, Louisa Giles, Fred Palmer, and J. Agate were nice. Mr. G. E. Thomas, gardener to the Marquess of Ripon, Studley Royal, Ripon, second; Mr. Folkard, third. Mr. McPherson was also successful for six of the same section, Mr. Folkard running him close and securing the second place quite easily. Mr. W. Richardson, gardener to G. W. Whitehead, Esq., Delington Grove, York, won for six incurved, any one variety, with Hanwell Glory, very neat and richly coloured if small. Mr. McPherson followed with Topaze Orientale, large, but loose in build. Mr. A. W. Whitlock, Monkton Lane Nurseries, Ripon, third with C. H. Curtis. Japanese varieties made a fine display in themselves.

For eighteen distinct, Mr. McPherson followed up his previous success by securing the leading position with handsome blooms of Mrs. Barkley, Beattie Godfrey, M. Chenon de Leche, Mrs. J. C. Neville, Mme. P. Radaelli, J. E. Upton, W. R. Church, Mrs. Greenfield, Florence Molyneux, General Hutton, and Ethel Fitzroy. Mr. D. Williams, gardener to the Earl of Feversham, Duncombe Park, Helmsley, a close second. Mr. Mease third.

In the class for twelve varieties, eight competed. Mr. McPherson, with excellent examples of W. R. Church, Mrs. Greenfield, Mme. Herwege, and Mrs. Mileham was the most successful. Messrs. Williams and Folkard second and third respectively.

The same three exhibitors occupied similar positions for twelve distinct. For six any one white-flowered variety, Mr. Williams, with remarkably fine Mme. Gustave Henry, won the first place; Mr. McPherson second with the same variety; Mr. J. Adams, gardener to Miss Chapman, Ottery Road, Harrogate, third, with Nellie Pockett. Mrs. Greenfield, especially rich in colour, won Mr. McPherson the premier award in the class for six any one yellow-flowered variety; Mr. Williams, with rather small examples of Edith Tabor, was second; Mr. R. Harrison, gardener to — Monkhouse, Esq., The Laurels, Blisphorthorpe, third. For six any one variety, except white or yellow, there were six sets, Mr. McPherson winning with W. R. Church, large, but rough; Mr. Folkard second with Mrs. Mileham.

Single-flowered varieties, in sprays of three of each, are always a feature here. Messrs. Theakstone and Son, Hull Road, York, won for six distinct with a charming display of popular varieties; Mr. A. Whitecock, Monkton Lane Nursery, Ripon, a good second; Mr. Murchison, gardener to J. B. Grotrian, Esq., Wetherby, third. Mr. Murchison was the only exhibitor of Anemone-flowered varieties in the class for twelve, in not less than six varieties, staging compact, well-developed blooms of such sorts as John Bunyan, W. W. Astor, Descartes, and Sabina.

What are known as decorative varieties receive much encouragement here. For twelve distinct varieties, three sprays of each, five competed. Messrs. Theakstone and Son won easily with a charming display, such varieties as Soleil d'Octobre, Ernest Piercus, Lizzie Adcock, La Triomphante, Source d'Or, Beattie Chapman, Eynsford White, and Mychett Beauty were especially noteworthy. Messrs. G. Longster and Sons, Beverley Nursery, Malton, were second; J. Styant, Esq., York, third.

Baskets of Chrysanthemums were very finely shown by the bulk of the ten competitors. Mr. G. Yates, 51, Penleys, Grove Street, York, was first with a pleasing combination of large and small varieties effectively blended with their own foliage. Mr. J. S. Holmes second, with a mass of Source d'Or; Mr. Styant third with the same variety. Plants were shown in quantity in the various classes set apart for them.

For a group of Chrysanthemums, interspersed with foliage plants arranged for effect in a space of 100 square feet, handsome prizes were offered. Mr. W. Townsend, gardener to E. B. Faber, Esq., M.P., Harrogate, won the premier position with good material, yet just a little faulty in arrangement—too many stakes and pots were visible. Mr. G. Jarvis, gardener to Mrs. Whitaker, Cliffe House, Heasle, second with a capital arrangement, but rather weak in material; Mr. Cottam, Alma Gardens, Cottingham, third.

Pillar groups, 17 feet high, with a base of 8 feet by 6 feet, in one case with a mirror in the centre, and in the other class without, always attract much attention here; good prizes are yearly offered. Messrs. R. Simpson and Sons, Brook Street, Selby, won the premier award in both classes with an arrangement with which little fault could be found. Mr. Jarvis was second in the pillar group, and Mr. Cottam second in the mirror display.

For a group of Chrysanthemums arranged for effect in 80 square feet, Mr. J. Pettinger, Franklin Square Nurseries, Harrogate, was easily first with dwarf plants carrying good blooms and leaves also; Mr. J. W. Hields, Front Street, Acomb, York, was second. Specimen plants were of fair quality, but not so numerous as in some years past. Mr. Everard, gardener to Mrs. Gatch, Heworth Lodge, York, won for four incurved, four Japanese, and for single specimens in the same sections.

Amateurs had really good plants and flowers. Fruit and vegetables were a good show.

HULL CHRYSANTHEMUM SHOW.

The twentieth annual Chrysanthemum show was held at Hull on the 18th and 19th inst. in the Artillery Barracks, and in many respects proved an excellent one. The group classes were not such a good feature as usual, but the cut blooms, plants in pots, and table decorations were splendid. This year the committee entirely dispensed with exhibition boards for cut blooms, and made the following rule: "All cut blooms to be shown in vases not less than 8 inches high,

with not less than 9 inches of stem above the vase. Chrysanthemum foliage may be added on separate stems." The effect of this rule was to add considerably to the pictorial effect of the display, and to enable one to judge the decorative value of the varieties at their proper worth. There is no doubt that this is the best method of displaying large blooms of Chrysanthemums, and it is to be regretted that there were no entries in the two largest classes, viz. for twenty-five incurved and twenty-five Japanese. While there is very much to be said for the vase classes, their adoption to the total exclusion of cut blooms on boards prevents the best competitors from a distance exhibiting, for naturally flowers on long stems are less readily carried about than those cut closely. Hull Chrysanthemum Society has a very energetic committee and secretaries. Soon after the judges have finished making their awards the list of prize-winners is being distributed in the show. The table decorations were unusually good and effective; they were arranged in a darkened room; each table was illuminated, and set exactly as for dinner. This is as it should be, and other societies might well do the same. The hard-working honorary secretaries are Mr. James Dixon and Lieutenant-Colonel R. E. Johns, and they are to be congratulated upon having such original features in their exhibition.

CUT BLOOMS.

There were no entries in the classes for twenty-five incurved blooms and for twenty-five Japanese blooms.

Ten Japanese blooms, distinct: There were six entries. First, Mr. C. Jennings, with large, somewhat coarse blooms, of which Vicar of Leatherhead, Matthew Smith, and Mrs. G. Mileham were the best; second, Mr. George Walker, Mr. Berkely being very good; third, Mr. J. W. Backhouse, Beverley.

Fifteen blooms, five each of Mrs. Dixon, Mrs. George Glenny, and Mrs. Rundle: There were three entries. First, Mr. W. Sinclair, gardener to H. Whitty, Esq., Cottingham; second, Mr. Anthony Drewery, gardener to W. H. Franklin, Esq., Cottingham.

Three vases of decorative Chrysanthemums—There were numerous entries in this class. First, Mr. G. C. Coates, gardener to S. L. Haldane, Esq., Hull, with a pretty display; second, Mr. H. Taylor, florist, Newland, Hull; third, Mr. G. Cottam, Alma Gardens, Cottingham.

Five Japanese blooms (one variety). There were seven entries. First, Mr. George Walker, gardener to C. E. A. Lyon, Esq., The Lair, Hornsea, with splendid blooms of Mrs. George Mileham; second, Mr. H. Harvey, gardener to G. Fletcher, Esq., Broxholme, Anlaby Road, Hull, with very good Rev. Douglas, a deep sulphur-yellow variety; third, Mr. Anthony Drewery, gardener to W. H. Franklin, Esq., Cottingham, with Lady Hanham.

Ten Anemone blooms: There were three entries. First, Mr. G. C. Coates, gardener to S. L. Haldane, Esq., Colman Street, Hull, with very good Robin Adair, Tam o' Shaner, and others; second, Mr. J. W. Bearpark.

Ten reflexed blooms: There were two entries. First, Mr. Anthony Drewery, gardener to W. H. Franklin, Esq., Cherry Garth, Cottingham, with good blooms of Dorothy Ghem, King of Crimsons, and Charles Tutt; second, Mr. J. W. Bearpark, Hull.

Twelve bunches of Pompons: There were five entries. First, Mr. G. C. Coates, gardener to S. L. Haldane, Esq., Colman Street, Hull, with a very pretty lot, though small; second, Mr. W. Sinclair, gardener to H. Whitty, Esq.; third, Mr. Anthony Drewery, gardener to W. H. Franklin, Esq., Cottingham.

Twelve bunches of singles: There were six entries. First, Mr. G. C. Coates, the varieties E. Neville, E. Pagram, and Felix being very good; a good second, Mr. Anthony Drewery; third, Mr. W. Sinclair.

DISTRICT CLASSES.

Twenty incurved blooms, in not less than four varieties. There were five entries. First, Mr. J. W. Backhouse, North Bar, Beverley, with some very fine blooms, notably J. Agate, C. H. Curtis, and Hanwell Glory; Mr. C. T. Frow, gardener to Richard Hodgson, Esq., Mill-croft, Beverley, was second, M. L. Lucy Faure, C. H. Curtis, and Louisa Giles being very fine blooms; third, Mr. H. Harvey, gardener to G. Tether, Esq., Broxholme, Anlaby Road, Hull.

Ten incurved blooms, not less than two varieties. There were four entries. First, Mr. C. Jennings, Aston Hall Gardens, North Ferry, with V. Foster, Perle Dauphinoise, and Hanwell Glory very good; second, Mr. J. W. Backhouse, North Bar, Beverley.

Twenty Japanese blooms, not less than four varieties. There were five entries. First, Mr. George Walker, gardener to C. E. A. Lyon, Esq., The Lair, Hornsea, with a fine exhibit, five blooms arranged in each of four vases. C. J. Salter, W. R. Church, and F. S. Vallis were the best; second, Mr. C. Jennings, gardener to F. Wordworth Jameson, Esq., Aston Hall, North Ferry, with Miss M. Ware, Graphic, and Miss E. Fulton as the best; third, Mr. J. W. Backhouse, North Bar, Beverley, with very fine Graphic among others.

PLANTS (OPEN).

Group of Chrysanthemums and other plants: First, Mr. G. Cottam, Alma Gardens, Cottingham, with a very highly-disposed exhibit, although the Chrysanthemums were not very good; second, Mr. Whitaker, Cliff House, Hull. The Chrysanthemums were better, but in the arrangement not so good; third, G. Thorpe Wilson, Esq., Brantingham Thorpe, Brough.

Mr. G. C. Coates, gardener to S. L. Haldane, Esq., Colman Street, Hull, was first for a mirror panel group of Chrysanthemums and other plants. Single varieties and Begonias were used very effectively. Mr. John Foster, jun., Newland, was second.

Mr. John Foster, jun., Smiddra, Newland, was first for one Palm and also three Begonia Gloire de Lorraine.

Chrysanthemum plants suitable for table decoration: First, Mr. G. C. Coates, gardener to S. L. Haldane, Esq., Hull, with an excellent group of useful plants; second, Mr. W. H. Young, Worthing Street, Beverley Road, Hull.

Six bush-grown specimens: First, Councillor G. Pape, Beverley (gardener, Mr. C. Welbourne), with splendid plants, especially of Vivand Morel and C. Davis; second, Mr. William Goodhill, Mayfield Avenue, Hull; third, Mr. W. H. Young, Worthing Street, Hull.

Six cut-back plants (quality of bloom, dwarf habit, and good foliage to be considered): First, Mr. C. Welbourne, gardener to Councillor Pape, Hull, with splendidly grown plants; second, Mr. H. Harvey, gardener to G. Tether, Esq., Hull; third, Mr. G. C. Coates.

Three bush-grown plants, each plant on a single stem: First, Mr. Welbourne, with finely bloomed specimens; second, Mr. Robert Thirak, Grove Hill Road, Beverley; third, Mr. H. Harvey.

Some well-grown plants were also shown in the amateur classes, the chief prize-winners being Messrs. Robert Thirak, W. H. Young, and William Higgins.

AMATEURS RESIDING WITHIN TEN MILES OF HULL.

Ten incurved blooms: The first prize was won by Mr. Walter Grasy, Studley House, Plane Street, Hull, with good blooms; second, Mr. J. W. Bearpark, Great Thornton Street, Hull; third, Mr. H. Coverdale, Cottingham.

Ten Japanese blooms: First, Mr. William Thompson, Walton Street, Hull, with excellent flowers; second, Mr. J. W. Bearpark, Great Thornton Street, Hull; third, Mr. H. Coverdale, Cottingham.

Five reflexed blooms: First, Mr. William Thompson, Walton Street, Hull; second, Mr. J. W. Bearpark; third, Mr. George Simpson, Heale Road, Hull.

Five Anemone blooms: First, Mr. William Thompson, Walton Street, Hull, with a pretty exhibit; second, Mr. J. W. Bearpark; third, Mr. George Simpson.

Six bunches of Pompons: First, Mr. William Thompson, Walton Street, Hull; second, Mr. J. W. Bearpark; third, Mr. H. Coverdale, Cottingham.

TABLE DECORATIONS (OPEN TO LADIES ONLY).

This was one of the best features of the show. The tables were arranged in a darkened room and illuminated by means of candles; in fact they were, as all tables should be in this class, set exactly as they would be for dinner. There were eight entries in the class for a table (8 feet by 4 feet) completely laid out for dessert for four persons. The only flowers to be used were Chrysanthemums. The first prize was awarded to Miss Bertie Kirk, Oatwick Hall, Holderness; yellow and bronze Chrysanthemums were sparingly used, and, together with Maidenhair Fern and grass, were arranged in small vases. Mrs. H. L. Leonard, Preston, Hull, was second with a very pretty table of red and white blooms. Miss A. K. Brown, Preston, Hull, being third. Miss Ella Pusey, 200, Anlaby Road, Hull, was fourth.

Bouquet of Chrysanthemums (ladies only): First, Miss Hilda Whitty, The Wellingtons, Cottingham; second, Mrs. E. Scotter, Hull; third, Miss Leach, Ella Street, Newland, Hull.

There was good competition in the other cut flower decorative classes.

Mr. C. E. A. Lyon, Hornsea, showed the best Japanese bloom in the show, viz., F. S. Vallia. The champion incurved bloom was John Agate, shown by Mr. J. W. Backhouse, North Bar, Beverley.

The Corporation of Hull (gardener, Mr. Whitty) exhibited an excellent group of Chrysanthemums and foliage plants. It was boldly arranged, the background being high and the front broad and low, a great variety of flowering and foliage plants being tastefully disposed.

Messrs. Smidgys, The Nurseries, Newland, Hull, had an excellent lot of tree Carnations in many good new varieties and Begonias.

NORFOLK AND NORWICH CHRYSANTHEMUM SHOW.

THIS old-established annual fixture, under the auspices of the Norfolk and Norwich Horticultural Society, was held at Norwich on November 19, 20, and 21. Mr. George Gordon and Mr. Reginald Green (Hobbies, 21, Mr. George Gordon) undertaking the duties of judging the Chrysanthemum classes. For several years there has been a general waning of the classes for six Japanese, six incurved, six Pompons, &c., in pots, and in this year's schedule the committee had taken away all these classes and inaugurated a new one, viz., for a 9 feet by 6 feet group of Chrysanthemums and foliage plants in pots. This was well taken up, five groups being staged, most of which were very meritorious. The premier award was secured by Mr. H. Goude, gardener to A. Bunting, Esq., The Grange, Old Catton; his group was very creditably arranged, and gradually rose from the floor level to 7 feet high; the plants, too, were well grown, and the blooms in good condition. Mr. W. Palmer, gardener to J. B. Coaks, Esq., Thorpe, was second, and he also had good blooms, but lost points in arrangement. Mr. W. Rush, gardener to F. P. Hinde, Esq., The Fernery, Thorpe, who was third, had a charming arrangement, but lacked points in the size of his blooms.

Cut blooms were a very strong feature; it seemed as if the late date of this fixture had hit just right upon the time for a wet season, as many of the stands contained blooms better than have been seen at some of the earlier southern exhibitions. There were three lots set up in the class for forty-eight Japanese, the first prize going to Mr. F. Hanson, gardener to the Right Hon. Sir Savile Crossley, Somerleyton Hall. Of course the collection contained most of the up-to-date sorts, and the blooms were nicely finished. Mr. W. R. Seago and Mr. J. W. Brooke, both of Lowestoft, were second and third respectively.

In the class for thirty-six Japanese, open to growers in the county, no fewer than nine stands were set up, and a difficult task presented itself to the judges. It might be said all were quite up to exhibition standard, and few points made the different awards. The result was: First, Mr. W. E. Lawn, gardener to Francis Martin, Esq., Wroxham; second, Sydney Morris, Esq., Wretham Hall, Thetford; and third, Mr. H. Goude, gardener to A. Bunting, Esq., Old Catton.

The class for twenty-four Japanese was also well contested. In the class for six distinct Japanese, Mr. G. E. Maynard,

a chemist of Wymondham, and an ardent Chrysanthemum amateur, secured premier place with six grand blooms.

There were two classes for Japanese blooms in vases, three of a sort, one class six varieties and the other three. Mr. F. Hanson, Somerleyton, here took the lead, as he also did in the chief class for incurves. These latter, by the way, are never a very prominent feature nowadays. Dr. O'Grady of Yarmouth, made a clean sweep of all the first prizes in the Pompon, Anemone, and single-flowered classes.

Some pretty combinations of artistic arrangement were to be seen in the Hall vase and decorated basket classes, Mr. W. Allan, gardener at Gunton Park, taking first place in the section.

Exotic and other cut flowers were well shown, as were also miscellaneous pot plants. Under this head in the class for Orchids, Mr. H. Rider Haggard succeeded in winning all the first prizes, his *Oncidiums* and *Cypripediums* being in grand condition.

Mr. William Allan took chief of the fruit prizes with good Grapes and Apples, a new variety of his Norfolk Beauty coming in for much comment.

Vegetables were a well contested section, and here, as before, Mr. George Davison, gardener to Captain Petre, Westwick House, was a very prominent winner.

Hobbies, Limited, arranged one of the most effective displays of the most up-to-date exhibition sorts. These were placed tier-above-tier style, and surmounted by vases containing about a dozen bold blooms of one variety. About 7 feet of the stand in the centre was a charming bank of Rose blooms cut from their Rose fields in the open—creditable flowers for so late a date.

Messrs. Daniels Bros., Limited, Royal Arcade, Norwich, had a large display of choice pot plants, cut blooms, the most recent kinds of Potatoes, and fruits, which were displayed to grand effect and much inspected by the numerous visitors.

ROMFORD CHRYSANTHEMUM SOCIETY.

THE Corn Exchange never looked prettier than on the occasion of the annual display of Chrysanthemums on Thursday, the 12th inst. On this occasion the cut blooms were exceptionally good, and the groups both interesting and pleasing in their arrangement. In addition to a fine show of Chrysanthemums there was a splendid display of fruit, magnificent Apples being in abundance. Vegetables, too, were finely shown, and we doubt very much whether a better record than that of eleven first prizes for one exhibition has ever been beaten. Mr. George Hobday, an enthusiastic Romford amateur, has accomplished this, and his exhibits were of a high order of merit. To Mr. W. Wallis, the hon. secretary, much praise is due, and the committee work loyally with him.

PLANTS.

Mr. James Preece, gardener to Miss E. Willmott, Warley Place, was placed first for his group of Chrysanthemums arranged in a space of 40 feet. His blooms were large and fresh, many of the blooms growing on plants with single stems in small pots. The arrangement, unfortunately, was very formal. Mr. Preece has now won the Challenge Cup twice. Second prize was won by Mr. John Little, Hylands, Brentwood Road, with a praiseworthy group.

In another class for a group of Chrysanthemums, set up in a space of 30 feet, Mr. W. Richardson, gardener to Mr. F. Green, Hanwell Lodge, was placed first with a pretty arrangement. His blooms were well coloured and fresh. Mr. A. Higgins, gardener at the Cottage Homes, was a good second, and Mr. M. Whymark, Parkside, Ardley Green, third.

Two excellent groups of 20 feet each, open to amateurs, found Mr. T. Page, Manor Road, leading, with a neat and even arrangement of well-grown plants; and second prize was secured by Mr. J. G. Ward, Brentwood, whose flowers were past their best. Mr. Page also secured the National Chrysanthemum Society's certificate for his group.

Mr. Preece had the best single specimen plant, showing a finely-developed plant of Miss Nellie Pockett; Mr. J. H. Sellers was second with a large plant of William Seward, and Mrs. Winnill was awarded third prize.

A similar class, open to amateurs, was a good display, Mrs. Winnill being first with Mrs. Barklay; Mr. T. Hughes, second with a beautiful plant of Mr. William Holmes, and Mr. J. H. Sellers third with Mr. T. Carrington. There were several other classes for plants, and these were a welcome feature of the show.

CUT BLOOMS.

The chief class under this heading was one for twenty-four blooms—twelve Japanese and twelve incurved—distinct, and this was an open class. Mr. Preece gave convincing evidence of his skill by winning the first prize quite comfortably. This being the best exhibit in the cut bloom classes, the Tannar Challenge Cup, which Mr. Preece has already won once, accompanied the first prize. The cup has to be won three times in all to be won outright. Mr. Preece showed good incurved blooms, including Mrs. W. C. Egan, Duchess of Fife, Topaze Orientale, Ialene, C. H. Curtis, Nellie Southam, and Ma Perfection. His Japanese blooms were very fine specimens, and included Henry Perkins, W. R. Church, Duchess of Sutherland, Bessie Godfrey, Mrs. Barklay, Mrs. J. Bryant, and Mme. Gustave Henry. Mr. C. W. Hodges was second with a fresh lot of blooms, having weaker incurved flowers.

For twelve cut blooms Mr. Hodges was placed first with twelve even Japanese blooms, finely developed flowers of Mrs. Barklay, General Hutton, Lord Ludlow, Mrs. E. H. Hammell, Mme. Carnot, Mrs. W. Mease, and M. L. Remy. Second prize was won by Mr. Preece, who was close up.

For twelve incurved blooms, distinct, Mr. J. W. Easton was first with a fairly even lot, Mr. W. Richardson following with third prize.

In the class for six Japanese blooms, distinct, there were seven competitors, victory resting with Mr. A. C. Horton with grand examples of W. R. Church, Le Grand Dragon, Mrs. W. Mease, and others. Mr. F. Hales was second, and Mr. A. Higgins a very close third.

For six incurved blooms, distinct, Mr. A. C. Horton was placed first with a nice lot of large and even flowers, Mrs. H. J. Jones, Chas. H. Curtis, and Duchess of Fife being in capital condition. Mr. Higgins was second with a much weaker set.

Grand, indeed, were the exhibits in the class for six Japanese blooms of one variety. Superb examples of W. R. Church won first prize for Mr. Hodges, and beautiful blooms of Mme. Carnot secured second position for Mr. Preece. Anemones were nicely displayed by Mr. Horton, who was first with a clean lot of blooms. Of the four contestants in the class for three vases, cut blooms, three blooms of one variety in each vase, Mr. Horton was a good first with a beautiful trio, Mr. Preece showing handsomely for second, and Mr. J. G. Ward third.

There were four competitors in the class for six incurved blooms, one variety only. A very fine lot of C. H. Curtis placed Mr. Preece first; the same variety also accounting for Mr. Horton in the second position, and Mr. J. W. Easton third with Mdlle. L. Faure.

A good class was that for three blooms each of ten varieties, Japanese sorts being shown. These were set up in vases. A capital series found Mr. M. Rayment leading, Mr. A. Cook being second, and Mr. W. Richardson third.

In the amateurs' classes for Chrysanthemums Messrs. E. Staines, J. H. Sellers, F. Page, M. Whymark, and J. E. Pink were the principal prize winners. In the vegetable section Mr. George Hobday was invincible, his exhibits being of a very high order of merit and all superbly staged.

FRUIT.

The competition was very keen in the class for three dishes dessert Apples, Mr. A. Higgins winning first prize with clean and highly coloured Cox's Orange Pippin, King of Tompkins, and Ribston Pippin. Mr. C. Burgess was a very close second, and Mrs. Winnill a good third.

For three dishes kitchen Apples, distinct, Mr. A. Higgins was again first with splendid fruits of Golden Noble, Peasegood's Non such, and King of Tompkins. Mr. W. Green, Harold Wood, was a very good second, and Mr. Burgess third.

Both black and white Grapes were well displayed, and the single dishes of Pears left nothing to be desired.

ROYAL HORTICULTURAL SOCIETY.

THERE was a falling off in the number of exhibits at the Drill Hall on Tuesday last, as is usually the case towards the end of the year. Orchids, Begonias, Chrysanthemums, and shrubs contributed largely to the display. The intended lecture on "Fomology as a Study," by Mr. Lewis Castle, was unavoidably cancelled.

ORCHID COMMITTEE.

Present: Harry J. Veitch, Esq. (chairman), Messrs. J. O'Brien, de B. Crawshaw, H. M. Pullett, H. Ballantine, Norman Cookson, James Douglas, Francis Wellesley, Frank A. Behder, A. Hishop, C. Hill, A. A. McBean, G. F. Moore, F. Thorne, J. W. Odell, W. Boxall, W. H. Young, M. Gleeson, W. H. White, H. Little, W. A. Biley, H. A. Tracy, and J. Wilson Potter.

Captain Holford, C.I.E. Westonbirt, Tetbury, exhibited some splendid plants of *Cypripediums*; for instance, C. *insigne* Harefield Hall variety, with eight flowers; two plants of C. I. *Sanderum*, with six flowers and seven flowers respectively; C. *leucanum*, Holford's variety, with thirteen flowers and two seed-pods; C. *Euryades* Westonbirt variety, C. *E. var. aureum*, L.-C. Cassiope Westonbirt variety, and *Cypripedium charlesianum* superbum. Silver-gilt Flora medal.

Mr. James Cypher, Orchid grower, Cheltenham, exhibited a group of *Cypripediums*, many good varieties being included. Among them were C. *insigne* punctatum violaceum, C. I. *Sylhetense*, C. I. *Wallacei*, C. I. *dulcense*, C. *leucanum* giganteum, C. *leucanum* Cypher, C. I. *barbodes*, C. *insigne* sanderianum, C. I. *statteriana*, C. I. *Ernesti*, C. I. *Dorothy*, C. I. *Sanderum*, and other valuable varieties. Silver-gilt Flora medal.

In the group from Messrs. Sander and Sons, St. Albans, were many fine Orchids. *Cattleya labiata* King Edward, a large, handsome flower, was conspicuous, and *Laelio-Cattleya blechleyensis*, L.-C. Bowring-Glve, L.-C. *Pallas*, *Angreum distichum*, *Vanda coerulea*, *Odontoglossum Pescatorei*, *Zygocolex Veitchii*, and many *Cypripediums*, among which were C. *Memoria Moensel*, C. *Hitchinsiae*, C. *Evelyn Ames*, C. *insigne* McNabiana, C. I. *elegans*, C. I. *Chantini*, and other C. *insigne* forms, notably C. I. *variegatum*, with variegated foliage. Silver-gilt Flora medal.

Messrs. James Veitch and Sons, Limited, Chelsea, showed a group of hybrid Orchids that contained, among others, *Cattleya* x *Ixion*, *Laelia Omen*, *Cattleya Portia*, C. x *Elvina*, C. x *Apollo*, *Laelio-Cattleya Nysa*, L.-C. *Decia*, L.-C. *Terentia*, L.-C. *Illone*, *Cypripedium Thalia* (C. *insigne* var. *Chantini* x C. x *Baron Schröder*), *Dendrobiums*, &c.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, showed a small group of Orchids that contained *Cypripedium insigne* Sander, C. I. *Laura Kimball*, C. I. *statteriana*, C. *Muriel Hollington*, C. *Memoria Moensel*, C. *Niobe*, L.-C. *Decia alba* (a very pretty form), *Laelia praestans exelsa*, and others. Silver Banksian medal.

Messrs. Charlesworth and Co., Heaton, Bradford, York, exhibited an admirable group of miscellaneous Orchids. *Odontoglossum crispum*, O. *crispum*-*harryanum*, O. *Coradinei*, *Cattleya Enid*, L.-C. *Wilhelmina*, L.-C. *Irene* (*Cattleya bowringiana* x *Laelia tenebrosa*), L.-C. *blechleyensis*, *Cypripedium insigne* Harefield Hall variety, C. I. *sanderianum*, C. *Thalia*, C. *Queen of Italy* (C. I. *Sanderum* x C. *Godefroye leucociliatum*), L.-C. *Luna*, *Lycaste Tunstallii*, *Sophro-Cattleya eximia*, and *Miltonia vexillaria* *Leopoldii* were all shown in excellent form. Silver Flora medal.

Frank A. Rehder, Esq., The Avenue, Gipsy Hill, showed a group of *Cypripediums* comprising many good varieties and species. Among them were C. *Minos*, C. *sanderianum*, C. *Ernesti*, several yellow varieties of C. *insigne*, and others. Silver Flora medal.

Cattleya Hishopii (C. *lawrenciana* x C. *speciosissima*), with quite a blue tinge pervading sepals, petals, and lip, and

Cattleya Comet var. Audrey (C. Warrenti X C. aurea) were shown by H. S. Leon, Esq., Bletchley Park.

Wilson Potter, Esq., Park Hill Road, Croydon (gardener, Mr. Young), showed *Zygopetalum murrayanum*.

R. J. Measures, Esq., Cambridge Lodge, Flodden Road, showed *Cypripedium* X *Eyermannii* Sandere (C. l. Eyermannii X C. l. Sanders). The result is a flower of pale green uniform tint, with the top of the dorsal sepal white. Cut blooms of C. Charles Richman superbum and C. bellatulum x barbatum superbum were also shown.

Mr. H. Wheatey, The Nurseries, Kenilworth, showed a small group of *Cypripedium*s, including C. insigne Sandere, C. l. Harefield Hall, C. leeanum giganteum, C. x Amy Robeart, and others. Silver Banksian medal.

Francis Wellesley, Esq., Woking, showed *Cypripedium insigne* Westfield var., with a dorsal sepal heavily blotched with brown upon a green ground, and with broad white margin.

NEW ORCHIDS.

An award of merit was given to *Cypripedium leeanum* var. *staffordianum*.—A distinct and handsome variety. The dorsal sepal is large, beautifully formed, broad and almost flat at the top, and tapering to the base, the upper half is white, with a crimson mid-rib, the lower half is green marked with brown. The green and brown petals are prettily crinkled; the lip is bold, and a dark brown colour. From Captain Holford, C.I.E., Tetbury (Orchid grower, Mr. Alexander).

Laio-Cattleya Cassiope Westonbirt variety.—*Laelia pumila* and *Laelio-Cattleya exoniensis* are the parents of this hybrid. The petals and sepals are broad and a rosy lilac, the lip is rich velvety purple and prettily crimped, and the throat lined with yellow. From Captain Holford, C.I.E. (Orchid grower, Mr. Alexander).

Cypripedium Queen of Italy.—This is a flower of delicate and chaste appearance; its parents are C. insigne Sandere and C. Godefroyi leucochilum. The petals and sepals are greenish white, dotted with crimson, the upper half of the dorsal sepal is white; the lip is very pale green, with hardly any spots. From Messrs. Charlesworth and Co., Heaton, Bradford, York.

FRUIT AND VEGETABLE COMMITTEE.

Present: George Bunyard, Esq. (chairman), Messrs. T. W. Bates, S. Mortimer, J. Cheal, Alex. Dean, Wm. Fyfe, Owen Thomas, G. Reynolds, J. Jaques, J. Willard, G. Norman, J. McIndoe, A. H. Pearson, Geo. Wythes, and H. Markham.

Mr. F. Cole, gardener to Sir Charles Russell, Bart., Swallowfield Park, Reading, was given a silver-gilt Knightian medal for a collection of Grapes. They were splendidly finished and denoted the best of culture. Cooper's Black Alicante and Muscat of Alexandria were very good, the bunch of Mrs. Pince, however, lacked colour.

Messrs. G. Ambrose and Son, Cheshunt, Herts, again showed their new Grape Melton Constable Seedling. The bunches shown were exhibited at Edinburgh on the 4th and 5th inst., and proved that this variety both travels and keeps well.

Mr. H. Crawley, The Grange Gardens, Kip-pington, Sevenoaks, showed a seedling Grape, but no award was made.

Apple Crimson King and one unnamed were shown by Mr. J. Crook, Forde Abbey, Chard.

Messrs. B. S. Williams and Son, Upper Holloway, N., showed Savoy Williams' Conical.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), Messrs. C. T. Drury, George Nicholson, James Walker, E. Dean, John Green, J. F. McLeod, J. Jennings, G. Reuthe, C. E. Fielder, Charles Dixon, C. J. Salter, R. C. Notcutt, Charles Jeffries, H. J. Cutbush, Charles E. Pearson, Charles E. Shea, H. J. Jones, W. P. Thomson, E. H. Jenkins, W. J. James, Charles Blick, Edward Mawley, E. T. Cook, and R. W. Wallace.

A capital group of specimen Ferns was that from Messrs. J. Hill and Sons, Lower Edmonton. It was indeed a group of specimen plants in some twenty-five varieties and contained notable example of *Polypodium Mayii*. A magnificent basket-grown example, with draping fronds 2 feet or more long; *Gleichenia semi-vestita*, *Davallia filifolia* major of 4 feet diameter; *D. f. elegans*, not so large, but more beautiful and finely cut; *Davallia solida*, very fine; *D. pentaphylla*, *D. epiphylla*, a very handsome plant; *Gleichenia flabellata*, very fresh and good; *Polypodium iridioides ramo-cristatum*, and *Davallia mooreana*, a glorious example nearly 6 feet through, and in splendid condition. These, with *Dicksonia squarrosa* and *Davallia elegans*, were among the best in this really excellent lot of plants. Silver-gilt Banksian medal.

Mr. John Russell, Richmond, filled a table with serviceable decorative examples of the best evergreens. In the group we noted *Garrya elliptica* with catkins; several *Aucubas*, as the finely variegated *A. limbatata*, the very handsome scarlet berried *A. vera*, a grand window plant for boxes; *A. maculata*, finely coloured, in company with variegated *Privets*; *Euonymus*, *Hollies*, and not a few of the best *Ivies*. Of these latter we single out *H. arborea flavescens*, and others. *Eurya latifolia variegata*, *Skimmias* and *Viburnum Awakukii*, with handsome copper-bronze shining leafage, were also noticeable and good. Silver Flora medal.

Very beautiful were the fine plants of *Begonia Gloire de Lorraine* and the white *B. Turnford Hall*, from Messrs. Cannell and Sons, Swanley. Brightly coloured, amply flowered, not over-trained, the plants were models of the good cultivation given to these kinds by the best gardeners of to-day. Trusses of zonal *Pelargoniums* from the same source were also of exceptional quality.

We noted *Princess of Wales*, very large cerise-scarlet;

Barbara Hope, salmon and white; Mr. T. E. Green, fine scarlet; Mary Beaton, white; Mrs. W. Watson, a fancy sort and a novelty for next year; a seedling in the same way; *Lady Roscoe*, rosy peach; Mrs. George Cadbury, salmon, white eye; Prince of Orange, orange-scarlet; Mrs. Simpson, salmon white, with salmon centre and lighter eye; Countess of Dudley is a crimson-scarlet, with white radiating centre; it is very distinct.

Chrysanthemums from the same firm included *Mytilene*, rich golden; Mme. P. Radzeili, pink; General Hutton, yellow; Fil d'Araignée, a spidery kind; Commonwealth, white; Bessie Godfrey, very handsome yellow flowers; and *Grahanopolis*, decorative, a rich yellow, in the way of *Jardin des Plantes*. Silver-gilt Banksian medal.

Messrs. Cutbush and Sons, Highgate, showed in excellent condition tree *Carnations* in the cut state, of which we noted General Macco, crimson; Lady Smith, pink; William H. Cutbush, carmine; Mrs. S. J. Brooks, white, very beautiful; Mrs. T. Lawson, G. H. Crane, scarlet; and Melba, a pink shade. These, with *Royalty* and Hon. H. Fellowes, are of the best. The same firm set up a group of hardy things, in which were *Primula megacaulis*, *Chelanthus Allionii*, orange; *Primroses*, *Gentian*, *Shortia galacifolia*, *Galanthus cilicicus*, a form of *G. nivalis* virtually; *Campanula muralis* major, *Crocus ochroleucus*, white, yellow base, &c. There were also *Saracenias*, *Darlingtonias*, *Meconopsis nepalensis* for its leafage, *Primula acaulis rubra plena*, *Andromeda Hendersoni*, with bronzy acuminate leaves, and many more. *Skimmias*, *Kniphofias*, and shrubby *Veronicas*. *Astilbe rubra* is a beautiful and well-marked species, the leafage strong, veined, and coloured red. Silver Banksian medal.

Another small exhibit was that from Messrs. Barr and Sons, and here were *Iris stylosa*, *Nerine elegans alba*, *N. undulata*, *Lycoris aurea*. A basket of *Solanum jasminoides* was also shown in flower, and presented a very beautiful appearance.

From J. B. Hankey, Esq., Fetcham Park, Fetcham (gardener, Mr. Higgs), came a superb lot of incurved *Chrysanthemums*. There were five dozen faultless blooms, in which we noted Mme. Ferlat, white; Ialene, lilac; C. B. Whitnail, purple; Bonnie Dundee, golden; W. Higgs, bronzy gold; Charles Curtis, yellow; Colonel Kekewich, old gold and bronze; Snowdrift, white; Miss A. Dighton, yellow; Mrs. F. Judson, pure white; Louisa Gilles, gold; Duchess of Fife, handsome, white, and of fine build. Silver Flora medal.

The *Poinsettias* from Messrs. Cripps and Son, Tunbridge Wells, contained in a half-circular group, were superbly done, brilliant in bract and large, with finely-coloured foliage to the pot margin. It is rarely one sees so large a lot so finely done and so uniform withal. The plants were especially creditable to the cultivator. Silver Banksian medal.

Epiphyllum delicatum from Messrs. William Bail and Son, Chelsea, represents one of a most interesting group of autumn flowers. The flowers are white and pale rose, very delicate and pleasing, and in the group as shown very attractive.

Buddleia Madagascariensis in the cut state was sent by Mrs. Baydon, Devon. It is a yellow-flowered species, with spicate racemes, and hardy in sheltered southern gardens. Vote of thanks.



A VIEW IN THE RHODODENDRON DELL AT KEW.

From Messrs. W. Wells and Co., Redhill, came an excellent table of cut *Chrysanthemums* in much variety, the latter too numerous for detail. We select some of the more conspicuous. Mr. Frank Hannaford, gold, incurved; Miss Alice Dighton, soft yellow, incurved; Mrs. F. Hudson, white; La Fusion, S. T. Wright, F. S. Cobbold, pink; Miss Violet, white and pink; Jumbo, bronze and red; William Higgs, gold and bronze; Donald McLeod, yellow; Dora Stevens, soft fawn, with gold reverse, a very striking novelty; Nivette, pure white; Mrs. G. Thirkell, gold; Lelia Filkins, pink; Dorothy Pywell, handsome white, fine massive flower; Terra Cotta, and General Hutton, yellow, being among the best. Many single and decorative kinds were also set up, a capital display resulting. Silver Banksian medal.

One entire table was devoted to the new winter-flowering *Begonias* from Messrs. Veitch and Sons, Limited, Chelsea. The sorts were *Winter Perfection*, *Agatha*, a very dwarf *Gloire de Lorraine*, *Winter Cheer*, a brilliant flower; *Julius*, salmon-pink, semi-double; *Ensign*, carmine, semi-double; *Agatha compacta*, and that fine winter-flowering species, *B. socotrana*, with pink erect flowers above the handsome peltate leaves. Filled end to end, the table, with these *Begonias* and a Fern margin, made a really sumptuous display of a group of flowers that must be grown more and more as they become known. Silver-gilt Flora medal.

A small but very interesting exhibit from Mr. George Reuthe, Keaton, Kent, was comprised wholly of *Nerines* and *Shortia galacifolia*. The former were mostly *N. elegans alba*, of which alone some two dozen flowering examples were staged. It is a beautiful plant, and the pure heads of bloom last a long time. *N. pudica*, with white funnel-shaped flowers, was also shown.

AWARDS.

Chrysanthemum Lady Cranston.—In some respects this is the most distinct novelty of the season. The flower-head is large, the florets long and drooping, white, with a suffusion of rose or rosy pink from the centre outwards, thus rendering it quite novel. All the blooms were precisely alike in this. Shown by Mr. R. C. Murray, Blackford House, Edinburgh. This variety is to be distributed by Mr. Godfrey, Exmouth. Award of merit.

Chrysanthemum Dorothy Pywell.—A large and massive flower, of a creamy-white tone, the broad florets having an upward tendency that hardly amounts to incurving. From Mr. J. Seward, The Firs, Hanwell. Award of merit.

Chrysanthemum Mrs. J. Dunn.—It seems well-nigh impossible with so many good white Japanese kinds in cultivation that a perfectly distinct form should arise, but so it is. The graceful drooping florets are of great length, very broad, mostly quite flat, and of crisp papery consistency that rustles with the touch. Its whiteness, too, is noteworthy, while high on its self-supporting stems the flower-heads are very imposing. Shown by Mr. H. J. Jones, Lewisham, S.E. Award of merit.

SHIRLEY HORTICULTURAL SOCIETY.

THIS useful society, whose headquarters is in a suburb of Southampton, unfortunately suffered a loss on the annual show held in August, so it was resolved to hold a small *Chrysanthemum* show with the object of wiping off the deficit. The exhibition was held in the Shirley Assembly Rooms, kindly lent for the occasion, on the 18th inst., and a very creditable little show was got together.

The committee are much indebted to the ladies, for there is no doubt their exhibits were the feature of the show. The table decorations down the centre of the hall would have done credit to any show. Mrs. Ernest Ladhams being first, with a light and pretty arrangement of Roses, Pinks, &c., Miss Minnie Snellgrove being second. This young lady also took a first prize for a very artistic arrangement of Chrysanthemums and autumn foliage; the other displays were all good.

The other exhibits included some excellent little groups, those shown by the cottagers being most creditable. Cut blooms, in which Mr. F. Chandler, an amateur, took premier honours, and some good vegetables and fruit, especially those from the gardens of J. Willis Fleming, Esq. (gardener, Mr. W. Mitchell) and H. E. Sugden, Esq. (gardener, Mr. W. Valentine) were shown.

Messrs. B. Ladhams, Limited, Shirley Nurseries, and Mr. E. Willis, Winchester Road Nurseries, contributed stands of Chrysanthemums, floral designs, fruit, &c. A charming arrangement of Orchids and Palms was exhibited by Mr. Peel, gardener to Miss Todd.

In the evening some friends gave an instrumental and vocal concert, the hall being then packed to overflowing, so we hope the object of the promoters was more than realised.

WEYBRIDGE.

In the village hall the annual show of Chrysanthemums, miscellaneous plants, fruit, and vegetables was held, and was a compact exhibition of good produce in every section. Cut blooms were remarkable, so well were they staged. The chief class was that for twelve Japanese, distinct, for which a Japanese silver cup was offered, creating much interest in local circles. Five competed, the coveted award falling to Mr. J. Lock, gardener to Sir Swinfen Eady, Oatlands Lodge, Weybridge, for huge blooms beautifully coloured and staged. The leading varieties were Mrs. F. Vallis, Mme. Nagelmacker, Henry Stowe, Henry Perkins, F. S. Vallis, Beattie Godfrey, Mildred Ware, Miss Olive Miller, General Hutton, W. R. Church, G. Lawrence, Mrs. Mileham, and Edwin Molyneux, the latter extra fine; Mr. T. Stevenson, gardener to E. Mocatta, Esq., Addlestone, was a good second; Mr. W. Shute, gardener to Mr. Machin, Oatlands Park, third.

For eighteen Japanese, Mr. J. Lock was first again with blooms quite equal to those he staged in the preceding class; Mr. Stevenson again second; Mr. T. Caryer, gardener to A. G. Meisner, Esq., Weybridge, third. Incurred varieties were much better represented than seen at many larger shows. For twelve, distinct, Mr. Lock was again successful with specimens not over large but neat, fresh, and true in character; Mr. H. Buckmaster, gardener to F. W. Smith, Esq., Oatlands Park, second.

Reflexed varieties were capitally represented. For twelve in not less than nine varieties, first, Mr. Caryer, with really good examples Clara Jeal, Mrs. Forsythe, Golden Christine, Miss F. Lunn, Cloth of Gold, and Pink Christine were the best; Mr. O. Beal, gardener to J. R. Anderson, Esq., Weybridge, second, with similar varieties a trifle smaller. Pompons were grandly staged. For six bunches of three blooms each Mr. Caryer won quite easily; Mr. F. Cawte, gardener to E. Loxmore, Esq., Weybridge, second.

For six bunches single-flowered varieties, distinct, Mr. Pagram, gardener to — Courtenay, Esq., Weybridge, was easily first; Mr. Stevenson second.

One class was provided for Japanese in vases. Twelve distinct, three blooms of each: Mr. W. Johns, gardener to A. W. Cobbett, Esq., Weybridge, only just succeeded in winning, so close was Mr. Buckmaster.

Groups of Chrysanthemums were effectively arranged. Mr. Pagram was the winner, he effectively used single-flowering varieties, along with Pompons and large-flowering Japanese; Mr. W. Shute second. In a smaller class Mr. O. Beal, gardener to J. Anderson, Esq., Weybridge, was first, with good material effectively displayed.

Specimen plants were not numerous, Mr. Pagram winning for one, a freely-flowered example of Ryeofoet Scarlet. To illustrate the value of large blooms of Japanese Chrysanthemums in conjunction with foliage plants a class was provided to occupy a space 3 feet by 2 feet 6 inches. Mr. Prothero, gardener to Miss Green, Weybridge, easily won the premier place with handsome examples of popular varieties; Mr. Pagram second.

For six Japanese, any one variety, staged in a vase, Mr. Stevenson, with Mrs. Mileham, was first; Mr. Caryer second. For a similar number of incurred, under the same conditions, Mr. Buckmaster, with Hanwell Glory, won easily; Mr. Caryer, with Duchess of Fife, second.

Amateurs staged remarkably fine flowers in their respective classes. For twelve Japanese, distinct, Mr. F. Wheatley won with a grand set of blooms, embracing popular varieties.

READING CHRYSANTHEMUM SOCIETY.

THE two Town Halls were full of attractive subjects on the 11th inst., it being the annual exhibition. In the old Town Hall could be seen very fine groups, excellent cut blooms of Japanese and incurred varieties and other types. The fruit, Grapes, Apples, and Pears, also found a place here. In the new Town Hall were various plants, tables of bright and effective zonal Pelargoniums, specimen blooms of Japanese Chrysanthemums in vases, baskets of autumn foliage, &c.

The main feature was the large group class, to which, in addition to a money prize to the best group, there was added a very handsome challenge cup. The rule is that to become the possessor of this cup it must be won three times in three following years, and this Mr. Galt, gardener to Charles E. Keyser, Esq., did in 1900, 1901, and 1902, and Mr. Keyser became the owner of it. But, being the president of the society, Mr. Keyser gave another challenge cup in its place, for which Mr. Galt again contested, but he had to suffer defeat at the hands of Mr. A. F. Walter, Bearwood, Reading (gardener, Mr. Barnes), who set up a very fine collection of plants carrying glorious blooms, and so secured the cup. Mr. C. E. Keyser Aldermaston House, came second; and Lady Lucas, Heatherwood, Ascot (gardener, Mr. Grant), was

third. There was another group class for Chrysanthemums and foliage plants, the former to include at least three sections, and here Lady Cooke, East Thorpe, Reading (gardener, Mr. Exler), was awarded the first prize. There were also some very pretty arrangements with cut flowers and foliage plants set up on table spaces, all very attractive.

Interest also gathered about the cut bloom classes, for, after all, the popular taste inclines to large blooms as indicative of power. There were very fine blooms in the classes for twenty-four and also for twelve Japanese, and among the flowers staged could be seen Alfriston, chestnut-crimson, with a deep amber reverse, a variety of which it is said it will displace E. Molyneux. Incurred blooms in twenty-four and twelve varieties were also seen in good character. The best twenty-four incurred came from Mr. Beble, gardener to H. H. Prince Hatfield, Chippenham, while Mr. Ashman, gardener to C. T. D. Crews, Esq., Billingbear Park, Wokingham, had the best twenty-four Japanese, and a very fine lot, too. The best six blooms of one variety of incurred were those of C. H. Curtis, from Mr. Simms, gardener to the Marquis of Downshire, Easthamptstead Park, Mr. Cole of Swallowfield coming second with Ialene. The best six blooms of one variety of Japanese were those of Mrs. Mileham, from Mr. Barnes, Mr. Galt coming second with Mme. P. Radaelli.

The class for six vases of specimen blooms, three of one variety in each, made a very fine feature and brought an excellent competition. Mr. Barnes of Bearwood taking the first prize with excellent blooms. There was a class also for twelve bunches of singles, and a class for a single vase. One charming feature of Reading are the baskets of autumn flowers, foliage, and berries, some delightful arrangements being staged, and there were epergnes also.

A pretty feature among plants were the tables of zonal Pelargoniums; they were numerous and very gay. Palms were shown in pairs; they included some very fine Kentias. Orchids were shown in threes; there were Begonias, Cyclamens, Primula sinensis, berried plants, &c.

Fruit was represented by Alicante, Lady Downe's, and Muscat of Alexandria Grapes; Gros Maroc was the best any other black, and Mrs. Pearson, shown in good character by Mr. Galt, was the best any other white. There were kitchen and dessert Apples in several classes, and a few Pears, but not up to the usual Reading mark.

Mrs. Philpen, Court florist, Reading, had a large bank of highly elaborate floral decorations of the highest merit, and Mr. George Prince sent from Oxford a collection of charming Roses, which found many admirers.

CROYDON GARDENERS' SOCIETY.

THE Croydon and District Horticultural Society held its meeting at the Sunflower Temperance Hotel, George Street, on Friday, the 6th inst.

The subject of fruit bottling or fruit sterilising had been placed in capable hands, and the society is to be congratulated on having an exponent of this art in Mr. R. B. Leech, of Wood Hall Gardens, Dulwich. The best vessels for bottling, he explained, are some made expressly for this purpose. They are wide at the neck to admit the fruit, and fitted with rubber rings and screw capsules, so that all air is excluded from the fruit when properly sterilised. The vessels are filled with fruit and a syrup made of one pound pure cane sugar, over which a quart of boiling water has been poured, added, and the whole allowed to cool, so that three parts of the fruit in each bottle has been covered. The capsule should be slightly screwed down and the bottles placed in a boiler with cold water reaching halfway up the bottles. The water should then be gradually brought to a heat of 160°, and kept at this temperature for from ten to thirty minutes, according to the size of fruit. The capsules must then be screwed down perfectly tight and the bottles allowed to cool, being careful not to give them too severe a change of temperature as that might cause them to crack.

Some excellent plants and cut blooms of Chrysanthemums were exhibited by Mr. W. Collins, gardener to Alderman Barrow, J. P., Engadine, Park Hill Road, and Mr. W. Bentley, gardener to Mr. G. Curling, Elgin House, Addiscombe, which were much appreciated, and showed splendid cultivation of this popular flower.

After a good discussion by some of the members the hearty thanks of the meeting were conveyed to Mr. Leech, who suitably responded.

DUMFRIES.

THIS show, held in the Drill Hall on the 18th inst., being the first in the district for sixteen years, was quite as successful as had been anticipated by the Dumfriesshire and Galloway Horticultural Society, its promoters. The date is rather late for the district, but the exhibits were generally of high quality. The show was formally opened by Sir Mark McTaggart Stewart, Bart., M.P. for the Stewartry of Kirkcubright, who gave a very interesting address, in which he displayed much knowledge regarding the Chrysanthemum. Unfortunately the exhibition was deprived of its chief musical attraction by the Grenadier Guards' band being prevented from attending by the visit of the King and Queen of Italy to London, and this affected the attendance of the public.

The cut blooms in the open and gardeners' classes were of excellent quality, and Messrs. J. Service and Sons took the first prizes in all the open ones. Mr. J. Hardcastle, Holme Hill, Carlisle, had the greatest number of points in the gardeners' classes, thus winning Mr. H. T. Jones's medal. Mr. J. Duff, Threave, won for eighteen and twelve Japanese, and the other winners in these Chrysanthemum classes were Mr. J. Henderson, Elmbank; Mr. M. McDonald, Langholm; and Mr. R. Young, Gracefield. Mr. J. Houston, Crichton Royal Institution, and Mr. E. Young led with the baskets in these classes.

In the premier plant class, for a semi-circular group 24 feet by 12 feet, Messrs. Service were first with a grand group of good plants; Mr. Houston coming second, with one of smaller plants, hardly so fresh, but very creditable. Other

leading prize takers in the plant class were Messrs. Henderson and Young.

Among the classes for miscellaneous plants, Messrs. J. M. Stewart, Mullance, Mr. McDonald, and Mr. Hardcastle took the highest places. In the vegetable classes, Mr. Henderson, Mr. Houston, Mr. Stewart, Mr. W. Muir, Summerville, Mr. J. Duff, Mr. K. Mackenzie, Conneath, Mr. R. Young, and Mr. McDonald were the most successful; Mr. Duff and Mr. Stewart leading with fruit.

MANCHESTER BOTANICAL.

THIS annual fixture was this year held at home on the 19th, 20th, and 21st inst., in the ample show house and large annex, but undoubtedly if the executive had thought that the thermometer would show 8° or 10° of frost some other arrangements would have been made; the cold was so severe that the blooms hung their heads, and in some cases were completely ruined. On the other hand, the display of plants, principally those grown in the society's gardens, which were arranged on the side beds with serpentine margins, and formed in groups of colour, fringed with scarlet Salvias, gave a magnificent effect when viewed from the upper end. Stoves were utilised to raise the temperature, but were not very successful in the large lofty building.

PLANTS.

Only three classes were arranged for competition, and in each Mr. J. Smith, gardener to James Brown, Esq., Heaton Mersey, staged the premier lot. Nine large flowering were fine plants remarkably well flowered; six Japanese were large, stalked plants, carrying large heads of bloom; and the six Pompons were trained in pyramid form and were freely flowered. The second prize-winner for the nine and six Pompons was Mr. J. Horrocks, gardener to James Walton, Esq., staging good plants in each case. Mr. J. Molloy, gardener to Thomas Harker, Esq., was second for six Japanese.

CUT FLOWERS.

Twenty-four incurred blooms, not less than twelve varieties, Mr. R. Nisbet, gardener to W. A. Bass, Esq., Burton-on-Trent, secured the leading award with good blooms.

For twelve blooms, distinct, Mr. C. W. Findlow, gardener to A. J. Oakhott, Esq., Birkenhead, led with a good box, including fine blooms of F. Hammond and Mme. Ferlat.

For thirty-six Japanese, not less than eighteen varieties, Mr. A. Chandler, gardener to A. James, Esq., had the best out of eight entries, forming the strongest class in the show. The winning lot had some extra fine blooms, including F. S. Vallis, M. Venosta, R. C. Church, Mme. Cadbury, General Hutton, Godfrey's Pride, Mrs. Barkley, &c.; second, Mr. C. J. Salter, gardener to Mrs. Heywood. For eighteen Japanese, not less than nine varieties, Mr. R. Poulton, gardener to E. Long, Esq., won with a telling box.

For twelve Japanese, distinct, Mr. A. Chandler was again to the fore. For thirty-six miscellaneous cut blooms Mr. C. J. Salter was to the fore, including good Anemones and reflexed.

In the big class for forty-eight distinct blooms there was only one entry, which was awarded a second prize, leaving the Manchester Challenge Cup, presented by Lord Derby, K.G., the president, to be competed for at some future date.

Mr. Thomas Druryshire, gardener to J. Whitehead, Esq., secured the leading awards in the local classes for twelve Japanese and twelve incurred.

For a basket of cut Chrysanthemums Mr. James Garner won with an effective display. For six vases of cut blooms, distinct, six blooms in each vase, Mr. R. Willacy, gardener to G. H. Gaddam, Esq., Didsbury, was first with medium-sized smart blooms.

NON-COMPETITIVE.

Mr. John Waterer, Bagshot, was the recipient of the society's gold medal for a very fine collection of shrubs and conifers in splendid condition.

Messrs. Clibran, Altrincham, were also awarded a gold medal for a collection of Persian Cyclamens of good substance and colour. Celosias, and cut Chrysanthemums.

Messrs. Caldwell staged Begonias, Heaths, Palms, &c.

Messrs. W. Wells' cut Chrysanthemums were superb. Noticeable were Miss Laura Bunyard, Cecil Denyer, Mrs. S. Shaw, Dora Stevens, &c.

Mr. John Robson, Altrincham, had a pretty exhibit cut Carnations.

Messrs. Dickson, Brown, and Tait, Manchester, sent a varied and highly interesting display of Gourds, &c.

Mr. George Boyes, Leicester, showed cut Carnations.

Mr. F. Weathers, curator, superintended the details of the show.

READING AND DISTRICT GARDENERS' ASSOCIATION.

A VERY interesting and enjoyable evening was spent by the members at their last fortnightly meeting, under the chairmanship of Mr. G. Stanton, when Mr. Townsend, Sandhurst Lodge Gardens, read a paper on "Water and Bog Plants." The lecturer has made a great study of these plants, and a visit to the gardens under his care is always a source of pleasure and delight. The first portion of the paper was devoted to the Nymphaea, which of course forms the principal feature of the water garden. It was pointed out that a fine Water Lily can be grown in a tub or earthenware pan. This should be sunk in the ground in any sunny position, put in 6 inches of good garden soil, plant your Lily and fill with water. Make the water overflow a little about twice a week with rain water or water from a well that has previously stood in the sun for a few hours. Ponds with cement bottom were dealt with, but the most suitable position for a water garden is where there is a small spring in a sheltered position in the full sun or one that can be made so by planting flowering shrubs and trees for shelter and effect. Varieties were then given and the depth of water most suitable to flower them freely. The collection at Sandhurst includes all the leading varieties, but too numerous to mention here. Other plants touched upon were Apogonotetichyon, Anagallis, Villaris, nymphaeoides, Ranunculus aquatilis, Caltha palustris

Pontederia cordata, *Sagittaria*, *Cyperus*, *Mimulus*, *Calthas*, *Fuchsia* in variety, *Hydrangeas*, *Erythrina*, *Iris* *Kœmpferi*, *Lobelia cardinalis*, *Gunnera manicata*, herbaceous *Spiræas*, *Senecio japonica*, *Daffodils*, *Wood Anemones*, &c. The lecture was made doubly interesting by a series of lantern slides reproduced from photographs taken by Mr. Townsend himself. A good and profitable discussion followed, in which Messrs. Judd, Lever, Neve, Hinton, Alexander, Durfitt, E. Dore, D. Dore, Fry, Herridge, Prince, and Stanton took part. A hearty vote of thanks was accorded Mr. Townsend for the enjoyable evening he had afforded the members.

NATIONAL CHRYSANTHEMUM SOCIETY.

A MEETING of the Floral Committee was held at Essex Hall, Strand, W.C., on Monday afternoon last, the 23rd inst., Mr. D. B. Crane in the chair. There was an interesting collection of novelties from several sources, several types of the flower being represented. Varieties considered worthy of recognition were the following:—

Lady Cranston.—This is a beautiful sport from the well-known Japanese variety *Mrs. Barklay*, and a flower that will be much sought after. The flowers were nicely finished, with long and broad gracefully reflexing forets. The colour may be described as white, freely tinted rosy purple in the centre. F.C.C. to Mr. W. J. Godfrey, Exmouth, Devon.

Dorothy Pysell.—A large and massively-built Japanese variety, sent out from the Ryecroft Nursery in 1901. It is a grand acquisition to those sorts that flower just a trifle later than most of the November ones. The petals are long and broad, and of good substance, and make a large and deep bloom. Colour, rich creamy white. F.C.C. to the raiser, Mr. W. Seward, The Firs, Hanwell.

Pink Pet.—This is a very pretty free-flowering single variety, which the committee classified as belonging to the large-flowered section. The flowers have a single row of forets, and the latter are of medium width. The colour is a pleasing shade of deep-rose pink, and the disc yellow. Undoubtedly one of the prettiest novelties of the season. F.C.C. to Messrs. John Peed and Son, Roupell Park, Tulsa Hill.

Among the novelties that failed to gain the coveted awards there were several of special interest, notably *Mrs. Richard Dugate*, a rosy mauve Japanese, with silvery reverse to the narrow forets; *John Chant*, a large and deeply-built incurved flower of a bronze colour, with yellow centre, which the committee thought was too much like *Frank Hammond* and *Countess of Londale*, a sport from the white *Edith Shrimpton*, with primrose centre, edged a lavender shade of colour. The next meeting of this committee will take place at the Crystal Palace on the occasion of the next show, on December 8 next.

EAST ANGLIAN HORTICULTURAL CLUB.

AN interesting and instructive paper was read before the members of this club at the November meeting by Mr. J. E. Clayton of 12, Royal Arcade, Norwich, entitled "A Chat about Gardening in the Present Age."

In opening his remarks, Mr. Clayton said, interest in the art of gardening, whether in the back yard plot of the cottager and artisan or the broad acres of the duke, was still as keen as ever. Many things went to incite interest nowadays, and, as of yore, exhibitions were foremost, and when a professional found himself beaten by an amateur it stirred up his mettle and gave him a determination not to let it happen again if possible. Gardening clubs and botanical classes for discussion were most helpful by their educational work to the young gardener, and it was pleasurable to see any new such class formed.

A good discussion followed, which was opened by Mr. T. B. Field, Ashwellthorpe, who commended the masterly way Mr. Clayton had dealt with the subject. Mr. E. Peake, head-master at Crook's Place Board School, Norwich, and a keen tutor in the cause of instilling the love of gardening in the minds of the young, the president, Mr. J. Powley, Mr. J. C. Abel, and others took prominent parts.

Mr. H. B. Dobbie, Pine Banks Gardens, Thorpe, Norwich, brought up a most interesting collection of conifer cones, comprising among them *Pinus radiata*, *P. excelsa*, *P. ponderosa*, *P. montezuma*, *Abies webbiana* and *noobilis*, *Sequoia* (Wellingtonia), *Picea smithiana* and *Titchensis*, *Cedrus deodora*, and *Araucaria imbricata*. Mr. Dobbie read a short and interesting paper upon them, for which he was accorded a hearty vote of thanks.

A mirror-decorating competition was keenly contested, the prizes, which were given by Messrs. Daniels Bros., Limited, being awarded to: First, Mr. William Palmer, Thorpe, for an effective display of *Gloire de Lorraine* Begonia and Grasses; second, Mr. T. Notley, High House, Thorpe, with a graceful combination of blooms and creeper foliage; third, Mr. W. Rush, The Fernery, Thorpe, who had tastefully used *Chrysanthemums* and *Asparagus* foliage. Mr. C. H. Fox, gardener to Sir Edward Mansel Cotton was first for half vase of *Chrysanthemums* and foliage, and he had also another vase of mixed seedling *Chrysanthemums* raised this year, many promising merit for decorative purposes. Mr. F. Williams, gardener to Mrs. Louis Tillett, brought up a plant of *Begonia Gloire de Lorraine* about 2 feet through, literally a sheet of blossom. In the competitive classes were also to be seen some good exhibits, especially vegetables, but fruit was scarce, except Grapes, which were well represented.

CARDIFF GARDENERS' ASSOCIATION.

ON Tuesday, the 17th inst., the members met at the Central Free Library (by the kind arrangement of John Ballinger, Esq., chief librarian), to view the large and varied collection of books on horticulture, this being the fifth successive year that a meeting has been arranged, and the librarian is fully convinced that in this way the books are more readily sought after than had been the case before a means had been adopted to bring the books closer to notice, for the majority of the valuable and beautiful

volumes, full of interesting engravings, are not allowed outside the precincts of the reference library. Many volumes have been added since last year's visit, for Mr. Ballinger is always on the alert for anything worth adding to this department, whether of an ancient or modern type. An enjoyable evening was spent, and the best thanks of the members were accorded the librarian.

. Reports of Bristol, Aberdeen, Melton Mowbray, Bolton, and Woolton Shows are unavoidably held over until next week.

THE VIOLETS.

IN one or another of its many beautiful forms the Sweet Violet is known to almost every child. There are probably few genera among hardy flowering plants so completely overlooked—I had almost written ignored—than this extensive one of *Viola*. As to what may be done by the judicious selection of a suitable type as a starting-point or basis we have no inconsiderable proof if we but glance at the wealth of variety and form that has been evolved from such species as *Viola tricolor* in one direction and *V. odorata* in another. With this evidence before us it is possible to believe there are no other species incapable of producing a similar result. The material may be waiting after all for some zealous worker to take in hand and give to the gardens of the generations to come not merely the evidence of present-day foresight and industry, but an amount of floral beauty and variety even greater than that we now enjoy from the work of those who have gone before. In some directions the hybridist working incessantly on the same lines not infrequently is brought face to face with one indisputable fact, viz., that the infusion of new blood is an absolute necessity before any fresh break can be obtained.

I have already referred to the *Viola* genus as a great one, as of species alone there are nearly 200. Of this large array I purpose giving a selection of the most important and useful from a garden standpoint. It is, perhaps, worthy of note that, while very few of the species are given in lists issued by British nurserymen, quite a large number are in certain foreign catalogues. For greater convenience I have placed the species in a roughly alphabetical order, as in this way they may be easily referred to.

V. alpina (Jacq.) (Alpine Violet).—This diminutive Violet is almost described by its specific name. It inhabits the summits of the loftiest mountain ranges of Austria and the Carpathians. The flowers are of a darkish blue, with even darker stripes; the stem is very short; leaves on long petioles, somewhat cordate, roundly ovate, notched, and distinctly tufted.

V. arenaria (DC.).—The habitat of this pretty species, or, indeed, the character of it, is again specifically defined, the species being found freely in sandy places, as in Vallais in Provence, the alps of Piedmont, and the Caucasus. It is distinctly glaucous and somewhat pubescent, the leaves roundly cordate, ciliately serrated; the sepals are oblong, lanceolate, and acutely pointed; flowers light blue, appearing in May and June.

V. altaica (Altaian).—A showy species from the Altaian Mountains, with large yellow flowers, and worthy the attention of the gardener and hybridist, or both. The plant is of creeping habit and rather slender, the leaves oval, stipules cuneate, with sharp teeth. It flowers in April and May. A large variety of it has purple flowers—*V. a. purpurea*—and this is sometimes seen in gardens with only the specific name attached. The variety differs in no other way from the type, and both are each about 4 inches high.

V. biflora (Two-flowered Violet) (Lin.).—There is a very pretty illustration of this small-growing species in "Wooster's Alpine Plants," in which the specific character is well shown. The plant rarely exceeds 3 inches or 4 inches high, and the small yellow blossoms are produced two on each stalk; root creeping; stem erect; flowers small, yellow, and lined with dark stripes; leaves kidney-shaped, serrated, smooth; spur very short. The roundly oval seeds are of a brownish hue and obscurely dotted. This interesting species is distributed throughout Europe, Siberia, and North-west

America, frequently on humid mountains, flowering in April and May.

V. blanda (Nutt.).—A pretty, though small-flowered and delicately fragrant species with white flowers, faintly lined with blue. The roots are jointed; leaves pressing to the ground, and somewhat pubescent on the under surface, cordately kidney-shaped. A native of wet and boggy meadows from New York to Carolina, flowering in May and June.

V. calcarata (Lin.).—An exceedingly variable species, and native of the higher mountain pastures from Austria to Provence. The flowers are blue or white; stem short; leaves roundly spatulate, elongated, crenate; root fibrous. Of this species there are several recognised varieties, namely, *V. c. Halleri*, with large blue flowers; and *V. c. Bertolonii*, found in the Apennines, with large purplish blossoms; 4 inches to 6 inches high; flowering April to June.

V. canadensis (Lin.).—Closely viewed this is an elegant little species with delicately veined flowers. Externally these are of purplish blue, the inner portion white and beautifully veined; leaves ovate, cordate, acuminate; native of North America in shady woods; sweet-scented. The plant attains a foot or more high, and flowers in early summer. There is a pure white variety (*V. c. albidiflora*).

V. canina (Dog Violet).—This pretty native Violet is widely distributed throughout Europe, and is abundant in North America. It is also found in Japan, Persia, and other parts. A species so well known to all who have plucked wild or pretty wayside flowers will need no further description. The white variety is, perhaps, more distinctly British than the rest. There are many varieties.

V. cenisia (Mount Cenis Violet).—A dwarf and pretty species rather freely distributed throughout the Alps of Switzerland, Piedmont, and Provence. The plant is only 3 inches or so in height and of semi-procumbent habit, with ovate spatulate entire leaves; flowers blue, in June and July. Some distinct varieties of this are *V. c. ovalifolia* and *V. c. diversifolia*.

V. cornuta (Horned Violet).—Among the species that in the past have played a somewhat important part in the embellishment of garden beds and borders this is one of the more notable. This is not so true, perhaps, of the typical plant as of its progeny, and to those who are yet working on sound lines it is still valuable by reason of its true tufted habit. The plant is fibrous-rooted, with ascending, diffuse stems; leaves ovate, cordate, crenate, ciliated; flowers pale blue, distinctly larger than in many species, and with awl-shaped sepals; height 6 inches, flowering from May to July. Native of the Pyrenees and Switzerland, and, again, on Mount Atlas. E. J.

(To be continued.)

OBITUARY.

MR. WILLIAM COSSAR.

WE are very sorry to hear of the death of Mr. William Cossar, who was head gardener to Lord Mansfield, Kenwood, Hampstead Lane, for thirty-seven years. Mr. Cossar was seventy-seven years of age at the time of his death, which occurred on Saturday last.

M. PIERRE CROZY.

THE death is announced from Hyères of M. Pierre Crozy, who in his nurseries at Lyons, and afterwards at Hyères, gained a wide reputation for the culture of Cannas. By the introduction of the dwarf-flowering race of Cannas, and effecting a great improvement in other varieties, M. Crozy has done a grand work for flower-lovers.

National Chrysanthemum Society.—The next exhibition of the above at the Crystal Palace is on December 8, not December 1, as announced by you.—R. DEAN.

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and all kinds of Garden Sundries.

EPPS & CO., F.R.H.S., Ringwood, Hants.

Horticultural lecture at Broughty Ferry, N.B.—On the 19th inst. an interesting lecture on "The Power and Influence of Little Things" was given by Dr. R. Robertson, of Errol, in the Grove Academy, under the auspices of the Horticultural Association. The lecturer dealt fully with small pests of the garden, and how to prevent their attacks, or to destroy them once their ravages had begun. The subject was discussed in a valuable manner.—S.

Edinburgh Chrysanthemum show.—The receipts of the above show on the 19th, 20th, and 21st inst. were considerably higher than had been anticipated by the committee of the Scottish Horticultural Association, its promoters. The total takings for the three days were £1,069 7s. 9d., an increase of £110 17s. 8d. With one exception this is the largest sum got at any of the Chrysanthemum shows, although it was feared that the unavoidable absence of the Grenadier Guards' Band would greatly affect the receipts.

Presentation to Mr. A. Dean.—At the Holborn Restaurant on Tuesday evening last Mr. Alexander Dean, who acted as honorary secretary to the Gardeners' Dinner Committee, and worked hard for its success, was entertained to dinner and presented with an address and silver salver by the members of the committee. Mr. Owen Thomas, chairman, made the presentation, and almost all the committee were present.

Chrysanthemum Lady Cranston. Among the recently certificated Chrysanthemums, this variety promises to be indispensable to exhibitors another season. It is said to be a sport from the largely-grown and popular exhibition Japanese variety Mrs. Barclay, and as such is sure to be highly regarded. The flower when finished is decidedly attractive, and may be considered beautifully chaste and refined. The colour is white, freely tinted with a pleasing shade of rosy purple in the centre, the latter colouring giving the blooms a finish that is much appreciated by those who have seen it. As presented to the floral committee of the National Chrysanthemum Society at their last meeting, the blooms were very large, with long and broad florets of good substance gracefully reflexing. The sport was fixed by Mr. R. W. E. Murray, a well-known and enthusiastic Edinburgh amateur—at least, it was given out so—and Mr. W. J. Godfrey of Exmouth has procured the stock of the variety for distribution.—D. B. C.

Royal Victoria Park, Bath.—The seventy-third annual report of this park is of a satisfactory nature, as the financial condition has improved somewhat owing to the receipt of some handsome legacies. The upkeep of the park has long been a struggle for those who have served on its committee, and it is to be hoped that a new era of prosperity is setting in. The general attractiveness of this park seems to demand more adequate and substantial response from those who make use of it. The cleansing and deepening of the lake was a very arduous task, but was overcome in a satisfactory manner. The special appeal for funds for this purpose only realised £23 13s., the expenditure being £74 17s. 3d. Mr. Milburn continues to render invaluable superintendence, and the committee especially note his indefatigable efforts.

Messrs. Harkness and Co., the Hitchin rosarians, recently entertained their employés to dinner, and a most enjoyable time was spent. Mr. John Harkness of Bedale presided, and was supported by Mr. Robert Harkness. Messrs. Harkness make a point of annually entertaining their employés.

Potentilla nepalensis.—Not only is this species one of the latest in flower, but it is of remarkable colour. This is a sort of crimson-carmine, and most attractive at any season of the year. The plant is easily grown, and free in growth and flowering. Given a position where the trailing flower-stems may topple over a rocky ledge, the plant will assuredly please many who have not yet noted all its rare beauty and colour.—E. J.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Names of plants.—C. E. F.—*Phillyrea latifolia*.—R. C. H.—1. *Clematis flammula*; 2. *Senecio Kempteri*; 3. *Chrysanthemum maximum* var.; 4. *Lychnis coronaria*; 5. *Aspidium falcatum*; 6. *Davallia*, species not complete enough for identification.

Paintings on China (F. B. B.).—No. 3 would be *Vinca rosea*, and No. 6 *Senecio elegans*.

Pruning Diospyros.—Must the *Diospyros* be pruned like a reach tree, or left to grow like other fruit trees in the open? I have one against a wall, and it has grown more than the others that are in the garden. They are young, but the gardener says that they have buds and will fruit next year if properly treated. Can any one give me directions?—L. C. [The *Diospyros* needs but little pruning; indeed, in the open ground it may be treated much as an Apple, that is, remove any weak shoots that show a tendency to form a crowded head, and shorten back any branches that are unduly vigorous. On a wall lay in the good clean branches, and where there is room for extension, the less pruning the more probably there will be of fruits.]

Begonia leaves diseased (BEGONIA).—The leaves received are affected by the little brown mite, which is so destructive, not only to Begonias, but other plants. When once it gets established it is most difficult to eradicate. Frequent fumigation with the XL All Vapourising Fumigator will check its progress, and with perseverance it may be entirely exterminated. This troublesome pest thrives near the warm pipes or any dry warm place. In addition to the fumigating, everything round the plants should be kept moist. The brown marks on the leaves are only ordinary decay, which is often caused by the flowers falling on the leaves while they are wet, and then being allowed to remain. We found only a few live insects on the leaves, but as they run about they may have got away during transit. It is often difficult to find the insects at all, for they run very fast, and as soon as a leaf is touched they drop off. It is often attributed to a rust or fungus. When the leaves are examined under a lens they present a brownish rusty appearance, which is caused by the exudation which takes place after the insects have bitten through the surface of the leaves; and this exudation changes to brown, also the damaged parts of the leaves, the result too often being the only evidence left, the insects having travelled further on or dropped off.

Propagating Chrysanthemums (B.).—In taking up cuttings from the root suckers of your Chrysanthemum plants in November, and whilst the plants were crowded thickly into a mass in the greenhouse, you used shoots as cuttings that were necessarily weak, because so far from light and air. Had you waited until the plants had ceased blooming, then cut down, and the pots stood into a frame where plenty of light and air were obtainable, you would have, after brief exposure there, very superior material to that which you used. Haste is often not the best course to secure good results, as plants from weak cuttings seldom give good flowers. Some growers take the precaution to plant out some of their best varieties in the open ground purposely to give sturdy acting shoots, the plants being cut down early was to cause the richer growths to come strong and early. Such shoots make first-class cuttings. Your roots, even in a cool house or frame, make fine plants.

Propagating Perennial Phloxes and Pæonies.—The Phloxes may be readily increased by division of the root stock now if you so desire, or at any time during the next two months. Indeed, this may be taken in hand as soon as flowering is over in autumn, which time, by the way, is most excellent, better in fact than the dead of winter. Then in spring propagation may be effected by means of cutting the fresh young shoots that appear at the base of the plant. These cuttings when about 4 inches long, if cut to a joint and inserted in sandy soil in a warm damp frame, root readily, and if grown quickly flower quite nicely in the autumn of the same year. We have grown capital heads of Phloxes in this way, by treating the plants to a liberal fare, after the manner of the Chrysanthemum. But unless you have a special desire for cuttings, we think you will get much the best results from division of the root stock. Only beware of the common error, and do not go in for large lumps when dividing the plants. Infinitely better heads of bloom are produced from single stems, that is to say, each single growth of this year will in 1904 produce about four eyes or shoots from the base, and these in turn, if they have room so to do, will develop good, clean, and withal fine shapely heads of bloom.

CORRECTION.—We regret that through an oversight the second prize-winner in the class for twenty-four Japanese blooms, distinct, at the Crystal Palace show of the National Chrysanthemum Society was credited to another grower instead of to Mr. J. Freese, the able gardener to Miss Willmott, V.M.H., Warley Place, Brentford.

* * The Yearly Subscription to THE GARDEN is: Inland, 15s.; Foreign, 17s. 6d.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the EDITOR OF THE GARDEN, accompanied by name and address of the sender.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Office: 20, Tavistock Street, Covent Garden, W.C.

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THE GARDEN

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[DECEMBER 5, 1903.]

THE MALMAISON CARNATION.

SO much interest is taken in the Malmaison Carnation at the present time that the following article from Mr. James Douglas deserves prominence:

ITS ORIGIN.

I have been frequently asked to give the origin of the Malmaison Carnation. The old blush with the pink-coloured varieties are distinguished as "Mals" in Covent Garden. To give it its correct designation it is Souvenir de la Malmaison. The flower and plant are so different from that of other Carnations that it would be interesting and, perhaps, instructive if its origin could be traced. I have stated that the Empress Josephine was an ardent cultivator of Carnations. Her gardens were at that time under the superintendence of the botanist Boupland. He may have raised it and named it after Malmaison, the residence of the Empress. This is the most probable solution of the question; it may have come as a chance seedling. It has been certainly many years in cultivation; longer, indeed, than any Carnation known to me. Some twenty-five or thirty years ago it became very common, so much so that the late Mr. Charles Turner informed me he threw away a houseful of plants because no one cared to purchase them. Some years after they would have bought the same houseful at a high price. So much for the vagaries of fashion in flowers as in other things.

The old Malmaison is very widely cultivated, but in recent years a great revolution has been effected in Carnations of this type.

MR. MARTIN R. SMITH

turned his attention to the cultivation of the Carnation in his garden at Hayes, Kent, about a dozen years ago. Previous to this there had been sports from the original blush form, pink, and crimson. The pink form is most esteemed. Mr. Smith by a system of cross-fertilisation with varieties that would seed (the Malmaisons will not) some 200 seedlings were obtained, and a selection of varieties made from them. I had the honour to introduce them to the public in 1894 for the first time, and these first fruits of an amateur's work are still equal, if not in some respects superior, to the later productions. They were: Lady Grimston, pinkish white, delicately marked bright rose, vigorous in growth, and very sweetly scented; Lord Rosebery, a handsome variety, very dark rose, and sweet; Mrs. Everard Hambro', with large, massive flowers of rosy crimson; Nell Gwynne, very pure white, large and handsome flowers; Prime Minister, bright scarlet, one of the most vigorous; Princess May, rich deep rose, this fine variety continues to flower through the winter; Sir Charles Freemantle has immense flowers of a rich deep pink; Sir

Evelyn Wood has a salmon ground, coloured with stripes of deep pink; The Churchwarden, large, full flowers of a rich crimson; and Trumpeter has large flowers of a distinct deep scarlet colour, sweet scented, and a plant of robust habit.

That is a full list of the early productions at Hayes. Other really fine varieties have been raised and sent out since. The best of them are Albion, deep salmon; Calypso, large, blush; Horace Hutchinson, rich scarlet; Iolanthe, bright rose; King Oscar, crimson; Lady Rose, rose-pink; Lady Ulrica, salmon rose; Lord Welby, crimson; Monk, salmon; Mrs. Martin Smith, large, blush; Mrs. Trelawny, dark salmon; Nautilus, flesh colour; Thora, blush, changing to white. The above are known as the Martin Smith Malmaisons. Maggie Hodgson and Mary Measures are choice Malmaisons of a distinct dark crimson colour, raised, I believe, in the garden of Mr. Measures. All the Malmaisons are greenhouse plants, and it is not worth while, except in favoured situations, to plant them out of doors, although I must admit that plants put out in a sheltered position this season made excellent growth and flowered freely. When they were not dashed by the rain the flowers were of good quality. Prime Minister is the best variety to grow in the open garden, and it is the easiest to cultivate either outside or in the greenhouse. Some amateurs purchase Malmaisons thinking to get a good display of bloom in winter, but for this purpose, with the exception of Princess May, they are not to be depended upon.

THE FLOWERING SEASON.

The best season for Malmaisons to bloom is during the months of May, June, and part of July, before the Picotees and border Carnations come in (if left to out of doors or cool house culture all the hardy border Carnations and Picotees bloom after the middle of July, and they continue through the month of August), and make a splendid display. I fill a house about 100 feet in length with them, and the delicious perfume, added to the rich colours from deep rose and pink to scarlet, crimson, and maroon, or the softer shades from white and blush to rose and pink, are admirable. Each flower growth would produce from, say, six to a dozen blooms, but to have really fine flowers it is best to remove all the side buds and allow the centre one only to develop. Of course, large two year or even three year old plants will produce a fine mass of bloom, one large one for every growth the plants have. The potting soil is not different from that used in the class of border Carnations; indeed, the treatment is the same throughout, except as to the size of the flower-pots. One layer is put into a 3-inch or 3½-inch flower-pot, according to the vigour of the layers. When well established it is again repotted early in the year into a 6-inch pot, potting firmly. In addition to the compost I have recommended,

some growers use artificial manure, and to meet the demand some dealers have produced what they term Carnation manure. I do not use this or any other artificial manure now, as I have come to the conclusion that it causes a coarse, sappy growth and predisposes the plants to the attacks of rust and other diseases.

PROPAGATION.

The Malmaisons are propagated in two ways, by slips or cuttings and layerings. Some varieties do not strike out roots freely from cuttings, but they can all of them be propagated by layering. The cuttings should be taken off in May, but only those too far removed from the base of the plants to be easily layered. They do best in a propagating frame in a forcing house, but with a little bottom heat in May artificial warmth is not needed. The cuttings may be struck in sandy soil in boxes or in pots, or one cutting may be inserted in a 2½-inch pot. They take from four to six weeks to strike out roots, and when well rooted they may be potted into 3-inch pots. Layering is done in June, so that it can be finished before the border varieties are layered in July and August. Get good strong layers. Some amateurs strip off too many leaves; this is a grave error, and not necessary to produce strong, handsome plants. The best plants are produced from layers cut at a point where the wood is in a medium condition, not too hard nor the least sappy. It is only necessary to cut through the joint, cut the part to be layered close up to the joint, and peg it firmly into the surface soil. This should be loose sandy stuff into which the rootlets will freely enter; but upon the whole the very best Malmaison layers are produced in this wise: there are generally exhausted Cucumber frames that have been made up with stable manure and leaves. The spent Cucumber vines are removed, some soil suitable for layering is put into the frame, and the Malmaison plants turned out of their pots and planted in it. This gives the best of all positions for layering; indeed, some tall growing varieties, such as Mrs. Martin Smith, Calypso, &c., cannot be layered in the pots owing to the tall, and in some instances, straggling growth. It is not well to leave the plants long on the parents; they should be taken off in good time and potted in 3-inch or 3½-inch flower-pots. The plants require to be kept in a close frame or greenhouse and shaded from bright sunshine until they have made some fresh rootlets; after this give air freely. Do not let the plants become pot-bound, but pot them on into larger flower-pots as they require it. It is better for the plants to be repotted into 4½-inch or 5-inch flower-pots, to be again repotted into 6-inch or 6½-inch afterwards. Place sticks to the plants in good time, so that they are not broken, and if early flowers are wanted the plants should be placed in a temperature of 50° as a minimum about Christmas, rising to 55° in January. This is.

a sufficiently high temperature. Rust is the most troublesome enemy of the Carnation; few collections are quite free from it. The plants may be to all appearance quite clean, but the insidious enemy may be lurking somewhere, or it may be introduced from elsewhere, and may be scattering the coffee-coloured spores unknown and unheeded. The only advice to give is, watch! and as soon as the least trace of it is seen cut off the diseased part and burn it. Do not waste time on washes, solutions, or dippings. Red spider will appear in hot, dry weather, and sometimes when the weather is neither hot nor dry. Syringe the plants thoroughly on the mornings of fine days, especially under the leaves; use clean rain water if it is to be obtained. Green fly is troublesome, but this is easily got rid of by fumigating with XL All. Careful watering cannot be too strongly insisted upon; this can only be done by a man of some experience. A man who really understands and loves his plants will make no mistake, but a careless cultivator, who may be thinking only about the dinner hour or the time to leave off at night, ought not to have Carnations of any kind under his care. When a plant gets over dry the potting soil shrinks from the sides, and pouring water into it is like pouring water on to a duck's back, nearly all the water runs down between the ball of earth and the sides of the pot, and the only way to moisten the soil is to soak it in a pail of water for half an hour. It is easy to tell if overwatering has been going on, the sides of the pot gives a dull thud when struck with the knuckles or a stick. Lift it up and it feels heavy as lead. I need not explain further. My advice is trust a careful man, but let not a careless fellow have anything to do with Malmaisons. JAS. DOUGLAS.

THE EDITOR'S TABLE.

We invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London.

WHITE CYCLAMEN.

"I am sending for your opinion some blooms and foliage of a white Cyclamen which I have carefully fertilised and selected for the past six years. I grow a large number of Cyclamen, but I consider this the finest I have seen. It is greatly admired here. The plants are large and robust and in 8-inch pots, from seed sown middle of September, 1902"—ANDREW CAMPBELL, *The Gardens, St. Anne's, Clonarf, County Dublin.*

The flowers sent were all that Mr. Campbell claims for them, and show well what can be attained by careful selection and hybridisation. A very beautiful flower.

ASTER TRADESCANTI IN POTS.

Mr. Martin sends from Stoneleigh Abbey Gardens flowers of this graceful Aster, with the following note: "This white Aster flowers so late in autumn in the open that I have given up growing it there, and instead have a batch of healthy plants in 6-inch pots for arranging with other things in the greenhouse or conservatory. These are now (the end of November) making a fine display, and show every sign of continuing to do so for some time. Their real beauty is as much in the elegance of the Heath-like foliage as in the pure white starry flowers,

and they have so impressed me that I think not only this variety, but other late-flowering ones, may be utilised with excellent effect in glass houses. In these gardens the autumn frosts and moisture-laden atmosphere generally play havoc with the late flowering, and they are not seen to advantage, hence my reason for trying them in pots. The results obtained with this variety suggest an extension of this method of growing them. A. Coombeishacre, A. Chapmani, and A. Turbiniellus, with a few others, would doubtless respond well to the treatment. The plants dotted here and there among other occupants of the greenhouse or conservatory or in groups certainly have a charming effect that can be excelled by few other plants flowering at this time. The plants may be lifted from the border now and potted up and wintered in cold frames. In March they should be repotted into fairly rich soil, and after giving them a start in a frame they may be plunged to the rims of the pots in the open for the summer months. The only other attention the plants received was to place a neat stake in the centre of each and tie the shoots loosely to them; liquid manure was given occasionally, and the weak, secondary growths that were produced from the base were cut out and the plant housed on the approach of wintry weather. Generally speaking perennial Asters have not done so well this year as usual, and the flowering of a great many varieties has been erratic. Although these Starworts are hardy it is a good practice to lift those annually that appear at all weakly in growth and pot them up; they may then be wintered in cold frames and planted out next March or April."

TEA ROSES IN NOVEMBER.

We have received from a correspondent near Reading a fragrant basketful of Tea and Hybrid Tea Roses, as fresh and fair as if they had been gathered in September. It may interest our readers to know the names of the principal varieties sent. They were Mme. Hoste, Anna Olivier, G. Nabonnand, Marie van Houtte, Mme. Pernet-Ducher, Mme. Alfred Carrière (a delightful bunch), and Lady Roberts; but the last-mentioned had lost its wonderful apricot colouring. Our experience of this variety so far is that the perfect shape and colouring of the flowers are only seen when the plant is grown under glass.

SOLANUM JASMINOIDES.

Flowers of this beautiful plant come from Mr. Field, Ashwellthorpe Gardens, near Norwich, with this note: "I am sending for your table flowers of *Solanum jasminoides* cut from a plant growing in the open. Some years ago I had occasion to plant this *Solanum* against the back wall of an old greenhouse having a north aspect. I did it with much misgiving, but having no better place for it rather than lose the plant, I tried it here. It grew away rapidly, covering the wall and part of the roof the first year, and, to my great surprise, flowered profusely. The second year it found its way through the roof between the wall and the woodwork; here it grew with marvellous vigour, and produced an abundance of its lovely flowers until quite late in the season. About the first week in December all the outside growth is cut clean away, and the part inside cut close back; the plant is kept rather dry all through the winter, and the temperature of the house often falls 6° or 8° below freezing point; this does it no harm. In the spring the plant gets a good watering, after which it soon starts into growth, and being left pretty much to itself soon covers both the roof inside and outside, and when covered with bloom has a very pretty effect. I have grown it for years against a south wall out of doors; but in very severe winters it is apt to be killed outright. An excellent plan, and one that I have adopted, is to grow some plants in pots and plant them out early in the spring. They will flower the same season, and when covered with their clusters of white flowers amply repay the little extra trouble taken. One is often asked to recommend a plant suitable for planting in a north house. I can with confidence recommend this."

LUCULIA GRATISSIMA.

The sweet fragrance and pretty rose colouring of the *Luculia* remind us of the approach of winter. Mrs. Tatton, Wythenshawe, Northenden, Cheshire, sends several remarkably fine flowering shoots, which flood the room with their perfume. Our correspondent also kindly sends a photograph of the *Luculia*, and we hope to reproduce this shortly. Mrs. Tatton writes: "The *Luculia* flowers beautifully planted out in a cool greenhouse, and the fact of its flowering at this time of year and the flowers being very sweet make it a valuable plant to grow."

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

December 8. — National Chrysanthemum Society's Exhibition, Crystal Palace (two days); Leeds Chrysanthemum Show (three days).

December 10. — National Rose Society's Annual Meeting at 3.30 p.m. and Dinner at 5.30 p.m., Hotel Windsor.

December 15. — Royal Horticultural Society's Meeting, Drill Hall, Westminster; Horticultural Club usual Monthly Dinner; Discussion opened by Mr. George Bunyard.

Pomological Congress in Normandy.—M. Charles Baltet, of Troyes, France, writes that the Association Française Pomologique Cidricole held its twentieth session recently at Bernay in Normandy. There were 2,700 collections of cider fruits, and hundreds of bottles of cider. Conferences were held upon the improvement of the Apple, insects and diseases, cider making, &c. The prix d'honneur was awarded to M. Baltet for his works on pomology, and for his efforts in helping to distribute the best varieties. The next session will be held at Vitré in Brittany.

A general view of the genus Pinus. At a general meeting of the Linnean Society of London, on the 19th ult., Dr. M. T. Masters, F.R.S., F.L.S., gave an abstract of his paper "A General View of the Genus Pinus," which was illustrated by specimens of cones and lantern-slides. He stated that the object of the paper was to discuss the nature and value of the characters made use of in discriminating the various species of Pinus, and to supply additional points of distinction derived from the anatomical structure of the leaf and other sources. Reference was made to the tegumentary, mechanical, and other leaf-tissues, to the position of the resin-canals, the number of cells in the endoderm-layer, the shape of the central half-cylinder or "meristele," the simple or branched condition of the fibre-vascular bundle, &c. A comparison was made in many cases between the perfected structure of the adult foliage, and in the imperfectly developed arrangement in the cotyledons and in the primordial leaves. By the aid of the "characters" above mentioned, together with those derived from the bud-scales, the number of leaves in the fascicle, the conformation of the male flowers, and of the cones and cone-scales, the author has framed an analytical table of the species, which, although mainly artificial, may be of assistance hereafter, in facilitating the determination of the species, and in arranging them in more natural groups. The two main divisions adopted are the thin-scaled Pines or *Tenuisquamis*, and the thick-scaled Pines or *Crassisquamis*, according to the relative thickness of the cone-scales. With these are associated so many other differences that the groups in question appear to be natural. Further sub-divisions are founded on the points of distinction previously mentioned. Notes are supplied relating to each of the seventy or more species, and intended to be complimentary to the descriptions already published. Bibliographical details and references to figures are given when deemed desirable. In the discussion which followed, Mr. A. C. Seward, Dr. D. H. Scott, Mr. W. C. Woodell, Dr. A. B. Rendle, Dr. A. Henry, and the president took part, Dr. Masters replying to the various questions which had been put.

Corydalis thalictrifolia.—As a good rock garden plant in the open this comparative novelty has been referred to more than once of late. I lately saw it, however, in the large temperate house at Kew, covering a huge block of stone at the corner of a pathway. The placing of this species in this position was a happy thought, the extending lobes of the leaves draping the rock in a very graceful way all round, the central portion still studded with flowering spikes.

Tibouchina macrantha.—This lovely autumn-flowering plant has been always well grown in the Royal Gardens, Kew, yet I think this year it is flowering more freely than ever. The largest plant seems as though it had been given its head more than the rest, with greater freedom of growth and flowering as the result. It is far better known to many as *Lasiantha macrantha*. Does this species enjoy cloudy, sunless seasons, as it is now flowering so well at Kew? It would not appear so by an account I lately heard of the great flowering and richness of colour when grown in Italy, and where the plant is freely used in the open in summer. Here in England a greenhouse treatment suits it well, and with some freedom for root action.

Saxifraga Fortunei.—It was recently stated that this fine plant was quite hardy in the open, not far from London, I believe. I have had the species killed outright more than once at Tooting, and also at Hampton. On the other hand, on the summit of Sydenham Hill, not far from the north tower of the Crystal Palace, the species certainly came through the winter. Its subsequent behaviour was not in its favour. In Cheshire the plant was killed outright when left on a small raised rockery. These experiences do not show that it is reliable out of doors generally. Recently at Ryde it was among the most telling and attractive of plants in flower, 12 inches to 15 inches high and as much across. Thus seen it was a most desirable subject for September and October blooming.—E. J.

A prolific Araucaria.—In the garden of J. R. Pease, Esq., Woodcote, Weybridge, there is at present an *Araucaria imbricata* carrying from thirty to forty large cones. It is a tree from 30 feet to 40 feet high, and the seeds—some of which have been submitted to me—are fertile. It is, therefore, certain that it has been fertilised by pollen of a male tree in the vicinity, but it is most remarkable that it should fruit so freely in such an inclement summer. This may be due to the previous hot summers we have experienced, which also probably applies to the Bamboos, which have flowered so freely this year. It appears to be an erroneous idea that the tree dies after producing such a quantity of cones, but from experience of other species of *Araucaria*, such as *A. Bidwilli* and *A. excelsa*, and from information I have obtained, it is not the case, though it is only natural that such a burden upon the tree would check their growth for a time. It would be interesting to know if other trees are fruiting, as I have also heard of another tree just showing small cones.—F. W. S., Weybridge.

The Royal Horticultural Society and a horticultural college.—The paragraphs that have been going the round of the general papers relating to certain proposals made to the council of this society by the Surrey Education Committee as representing itself and probably other educational bodies, need give no concern to the Fellows of the R.H.S. It was but partially known that when it was proposed to purchase the site for a garden offered at Limpsfield the Surrey Education Committee then offered to establish in conjunction with it a horticultural college in the Caxton Home adjoining. As the proposed purchase fell through the college proposal also fell through. Now that the Wisley Garden is that of the Royal Horticultural Society, an offer of a similar nature has been made, the college being not a residential one, adapted only to the needs of out-students, to be erected on land adjoining the gardens, and to include scientific laboratories and other appliances, and constructed to accommodate about fifty youths. Now that Swanley College has been closed to young men Wye College

in the south at least seems to be the only similar training institution for horticulture open. But that college is more properly only of an agricultural nature, and horticulture, in its widest sense, cannot be taught in it. The aim of the county authorities is to utilise the gardens of the Royal Horticultural Society to some extent as a practice ground for the students, especially as there will be at Wisley ample room for demonstrative work in all the chief branches of horticulture. Naturally, to that end the council will have to make very ample provision of material and of instructional ability, as that must be to students an element of the highest importance. It will not do to turn students loose in a garden to pick up such information as they can haphazard. For that reason it will be of the first importance that the existing capability at the disposal of the society be greatly strengthened. But then just as the garden is rendered all the more instructional and its demonstrations are of a practical kind, so will the society and the Fellows benefit. Naturally, the council will have to take great care that they incur no undue pecuniary responsibility in connexion with the college scheme, as that is of necessity a purely subsidiary object, and not that of the society or such as hitherto has been the object of a great practical and trial garden. If it should result in the proposed college being established it is hoped that the council of the Royal Horticultural Society will hand over its own students to the college and for furnishing its needful labour employ *bona-fide* workers. Naturally, the housing of some fifty students in so sparsely populated a district as Wisley is may well be a matter of concern. Still, it has not been lost sight of that youths with bicycles can now travel to Ripley, Cobham, Ockham, Esher, Weybridge, or neighbouring districts with comparative ease. Other local needs private enterprise would doubtless soon supply.—F. R. H. S.

Jubilee of the Horto-Agricultural Society of Piedmont.—This society will in May, 1904, celebrate its Jubilee by holding a grand international horticultural exhibition in Turin. An international committee of honour has been appointed. The Dowager-Queen of Italy is the patron, and the Duke of Aosta the president of the committee. Many gentlemen connected with horticulture in Italy and on the Continent have been nominated members of this committee, among whom are the following, viz.: Belgian horticulture is represented by the Comte Kerchove de Denterghem, the President of the Royal Botanical and Agricultural Society of Ghent, M. Ernest Fierens, secretary of the same society, and M. Lucien Linden; France is represented by M. Viger, the president of the National Horticultural Society of France, M. Abel Chatenay, secretary of the same, M. Ed. André of the *Revue Horticole*, M. Henri Martinet of *Le Jardin*, M. Ph. Rivoire, secretary of the French National Chrysanthemum Society, M. Albert Truffaut, and M. Maurice L. de Vilmorin; England has for her representatives Lord Redefdale, Sir Trevor Lawrence, Bart., Dr. Maxwell Masters, Mr. Harman Payne, and Mr. Thomas Bevan; M. Henry Correvon of Geneva represents Switzerland; and Germany is represented by Herr Max Kuhn. A liberal schedule of prizes, comprising 289 classes, has just been issued, and there is every probability of a very fine display. The executive committee has for its secretary Comm. Av. Paul Palestrina, and all communications should be addressed to 4, Rue Stampatori, Turin.

Pompon Chrysanthemums at Highgate.—It was my privilege a few days ago to call upon Mr. T. L. Turk of Southwood House Gardens, Highgate, where the Pompons are regarded with the greatest favour. For many years this excellent cultivator has cared for a charming selection of these flowers, and when well done they are exceedingly interesting and attractive. For many years, too, Mr. Turk has achieved considerable notoriety as an exhibitor of the Pompons. Coarseness this season has been an unknown quantity, the flowers being devoid of those characteristics that detract from their value. The blooms were not too large, as is sometimes the

case with rigidly-disbudded flowers, their form was exquisite, and the colours bright and pleasing. Purple flowers were splendidly represented by Comte de Morny, deep rose by Pygmalion, blush rose by Rosinante, and soft rose-tinted salmon and gold by the unrivalled blooms of Osiris. Black Douglas, which is really a rich dark crimson, was in fine form; Rubra Perfecta, a magenta-crimson, is a bloom of much charm; and Perle des Beautés, a deep crimson, although rather later than the other, is a handsome Pompon. President, a very old dark rosy crimson flower, has been a splendid colour this season, and much valued in consequence. White sorts were represented by Maid of Kent, a refined flower, and Mlle. Martha, still very highly regarded. There is no better yellow Pompon than William Westlake, the plant being free flowering and robust; and another yellow, of different form, is La Vogue. Nellie Rainford, buff-yellow; Prince of Orange, light orange-amber; and Mlle. Elise Dordan, the globular Pompon of a pleasing shade of soft lilac-pink, were all in fine form. For decorative uses Mr. Turk grows a quantity of the small-flowered singles, such as Miss Mary Anderson and Rose Pink, and very useful they are for the purpose. The Japanese sorts, which cannot be described in detail in this brief note, were much better than usual, and created a fine display. The plants are housed under exceptional difficulties, and the wonder is the results are so good.—D. C.

ROUND ABOUT A GARDEN.

BIRDS FOR THE WINTER.

THOSE who think, with me, that half the charm of a garden in winter and early spring consists in its bird life should remember, now that the birds are on the move, that if you wish to attract them in larger numbers to your garden for the winter now is the time to show them that it is a good place for food. In other words, now is the psychological moment to spread your bird-tables with such viands as appear adapted to the tastes of all the visitors whom you wish to encourage.

TO KEEP OFF THE SPARROW.

The first difficulty which at once occurs to most of us is how to prevent the omnivorous sparrow from assembling in dozens to eat everything up before your eyes. The sparrow has very few human friends, and the more you like to observe other birds around you the less you get to like the sparrow. In one of his books Mr. Hudson, a well-known literary bird-lover, says of the sparrow that he has "got into the habit of not noticing that bird"; and the habit is a common one. When, however, you have spread a feast for robins and tom-tits and your other little friends, you cannot help noticing the sparrow if a jostling crowd of him assemble round the food and gobble it up as quickly as they can.

THE MAGIC STRING.

Hence the primary necessity in establishing a bird-table, even if it is only a spot on the lawn opposite the window, is to keep off the sparrows. There is no unkindness in this, because the sparrow is a brainy, hard-billed, audacious and omnivorous bird, who very seldom feels the real pinch of hard times; and, if he should be really hungry, you may rest assured that he will get his share of your food then. It is only his suspicion and cunning which enable you to keep him away from the table in ordinary times, because he is the only bird who has lived at close quarters and on bad terms with man long enough to understand that a piece of string or thin wire may mean a trap. So you can either suspend your table by the corners upon strings, connected with each other by another string which thus passes round the table about 5 inches or 6 inches

above it; or, if the table is on the ground, you need only run a similar string round it, supported by uprights.

MAN AND THE SPARROW.

In time, especially if the weather is severe or snow falls, some of the sparrows, notably the finest of the cock birds, will risk the perils of the string and dart under it to snatch food hurriedly from the table; but by that time your purpose of attracting the other birds will have been executed, and one does not grudge even the sparrow the necessities of life in bad times. If, on the other hand, the food is not protected, he will at once constitute himself the autocrat of the breakfast-table; and every morning you will see groups of idle sparrows, calmly waiting until you shall replenish the table, and not attempting to do anything for a living. There is a great deal of human nature in a sparrow; and perhaps our dislike for him—though, of course, he has some good friends—is, like our natural antipathy to the monkey, based largely upon his resemblance to ourselves.

FOOD FOR THE TITS.

Some of our most delightful bird visitors can fortunately be catered for in ways which put the clumsy sparrow out of court from the outset. Occasionally, indeed, you may see a very ambitious sparrow hanging nervously upon a large lump of food which you have suspended from a string; but in this case his courage and agility deserve reward, and there is no fear that he will be able to monopolise the food. For whatever you hang up belongs to the tits. It is almost absurd to see a blue-tit which spies the hanging object from the other side of the lawn come flying straight as a bullet at it, and sticking to it like a dab of mud. Scarcely anything comes amiss to these cheery little mites in grey and green, blue, yellow, black and white, and olive.

GREAT-TIT AND BLUE-TIT.

For the colouring of the tits is as pretty as their ways, and, as they come in order of size to the swinging banquet, one can hardly decide which one likes the best. The great-tit—only relatively great, since he scarcely equals a sparrow in size—with his bold black and white face, greenish blue body, and yellow breast with central stripe of black (by the width of this you can tell the male from the female) is of course the handsomest; but when he has flown away, satisfied for the moment, and his place has been taken before the food stopped twiddling by a blue-tit, you think that the general hue of bright blue, delicately contrasting with the whitish face and pale yellow breast, is a daintier combination. The blue-tit is more brisk and perky in his attitudes, too, and an unrivalled acrobat.

"THE NUN."

Indeed, it is hard at first to understand why the blue-tit should be known over a great part of the country as the "nun"; for there is no sign of anything saintly or demure about his ordinary carriage, which is as often upside down as otherwise—by no means a nun-like deportment. But if, while he is feeding, a rival tit appears on the scene, you will see an extraordinary change come over the little bird's aspect. His blue crown is flattened down till it appears only a thin dark line above the whitish face, which is also straightly ruled by another thin line backwards from the eyes. Then, as the bird faces you, its curiously severe expression, combined with these straight lines on the upper part of its pale face, produces an absurd resemblance to a nun of austere countenance.

OTHER TITS.

After the blue-tit comes the coal-tit, a lively little imp in black and white, olive and buff, so marked a contrast to the others that you are almost inclined to think him the prettiest of the three. Most conspicuous and curious of his markings is the broad white streak on the back of his head, and by this you may always distinguish him from the marsh-tit, which in some gardens takes precedence of him on the strength of an extra quarter of an inch of fighting measure. The marsh-tit has a plain unbroken crown of black, and to this resemblance to the blackcap we owe most of the reports of that warbler remaining with us for the winter. Very rarely a fifth tit, and the nicest of them all, the tiny, tittering, long-tailed tit, will come to the bird-table, so freely attended by his cousins; but it is a joy to see him anywhere in the garden, looking almost more like a feathered drumstick than a bird, with his wee body and long tail. Only in the valleys of the Spey can you reasonably hope to see the quaint little crested tit, while the attempt to discover the willow-tit, scarcely distinguishable from the marsh-tit, the European coal-tit, with slaty-blue back instead of olive brown, as in our common British kind, and the white-headed, long-tailed tit may be left to experts.

With the great-tit, the blue-tit, the marsh-tit, and the coal tit, or even with any two or three of them, you will never lack something pretty to watch in the garden all through the dreary days of winter if you only take the trouble to hang up something for them. The more it twiddles, and the nearer you hang it to your window the greater will be your amusement; and you may as well consult your own desires in the matter, because to the tits it will be a matter of complete indifference where or how it is hung. They will find it out anywhere, and come to it without fear or shyness all day long. E. K. R.

CHRYSANTHEMUMS.

THE WARREN HOUSE, STANMORE.

IF one may judge from this season's display of Japanese Chrysanthemums, made in the spacious show-house in the gardens here, growers and exhibitors will have to look to their laurels in the future.

Mr. C. J. Ellis has thrown himself with energy into Chrysanthemum culture, and in consequence has surpassed any previous effort of the kind. Noble and handsome blooms of new and choice sorts were to be met with on every hand, and many of them were remarkable for their size. It could not be said that the blooms were coarse, as by a wise system of bud selection the blooms had developed in good form. Like many other establishments, the blooms here were giving evidence of damping, and with such prodigious specimens it is easy to understand the difficulty of keeping them in such a season as the present. This is a difficulty that will be obviated another year, and then results will probably speak for themselves. On the occasion of our visit we were pleased to see such fine blooms of the new Henry Perkins, a bloom of a glowing crimson colour, and enormous length of petal. Grand, also, were the flowers of W. R. Church, and grouped alongside were some of the finest flowers of Miss Evelyn Douglas, than which there is no more refined rosy mauve Japanese flower. F. S. Vallis, the lovely yellow of glorious form, was in excellent condition; and the same may be said of the massive-looking blooms of Mrs. Barklay, Lord Ludlow, and General Hutton. There were blooms that would have outrivalled many seen at the exhibitions; and of Australia and its chaste white sport, Herreweghe, there were phenomenal examples. Exmouth Crimson, Godfrey's

Pride, Mrs. J. I. Thornycroft, and Mrs. Harry Emmerton was a quartet with which any one might be proud of. Emily Towers is not so large as some other sorts, yet it is a very refined flower. Other good blooms were Miss E. Pilkington, Charles Davis, Lily Mountford, Mme. Paolo Radaelli, and Dolly Glide, and these were frequently in evidence. We saw some excellent examples of incurved varieties, Charles H. Curtis and Baron Hinch, the former being of wonderful depth. In all there were some 2,000 plants, which included a large number of decorative Japanese and singles, grown for cutting and other uses, and the display promised to continue till the turn of the year. Every encouragement in the embellishment of the numerous glass houses is given by the generous proprietor, Mr. H. G. Bischoffsheim; and at this season the Chrysanthemum plays an important part.

THE MONKHAMS, WOODFORD.

FOR some years past the handsome blooms of the Japanese Chrysanthemums that have emanated from these gardens have gained enviable notoriety for Mr. R. Kenyon, the capable grower, and from what we saw of the display before any flowers were out for the shows, we doubt whether a better lot were ever forthcoming from this source. In all, there were about 600 plants, and each one is grown to produce exhibition blooms. On the occasion of our visit some hours were spent in inspecting the flowers, which were almost finished and ready for the shows. What impressed me most of all was the great height of many of the plants. In almost every instance it was necessary to mount steps to be in a position to fully appreciate the flowers. Failures were conspicuous by their absence, and seldom have we seen such a uniform lot of magnificent exhibition Japanese varieties. Mr. Kenyon is fortunate in having so much glass available for housing his plants, for, in addition to a range of vineries, a spacious glass structure, specially built for the Chrysanthemum display, affords ample room to house the plants without in the least crowding them. Damping has been generally prevalent during the current season, but except in the case of Mrs. T. W. Pockett, the collection here has been remarkably free from such troubles. This may be attributed largely to the care exercised in the watering, and also to a capital system of ventilation. Mr. Kenyon kept his plants on the "dry side" when the blooms were well developed, and to a careful inspection of each plant regarding the supplies of moisture during the later period of their development may be attributed his success in avoiding damping. In many cases the blooms were quite phenomenal in size and colour, and it is also pleasing to relate that they were devoid of coarseness. It only seems a year or two since the trio representing Viviani Morel, Charles Davis, and Lady Hanham—truly a wonderful family of plants—were in the zenith of their glory, and except for an occasional bloom of more than ordinary quality, not one of them will stand with the more modern introductions. Thus it was that these old and tried sorts were eclipsed by the giants of to-day, and it is perfectly safe to say that the glorious trio just referred to will be less frequently heard of each succeeding season. Of the more noteworthy Japanese novelties in this collection we must mention Bessie Godfrey, a large and handsome yellow of good colour; Mrs. George Mileham, magnificent both in colour and petal; Godfrey's Pride, a carmine-crimson of wondrous colour and splendid petal. Another good crimson is Exmouth Rival, and this was a striking flower. Mr. Kenyon had some excellent blooms of Mrs. T. W. Pockett, which plant should be struck late, say January, and first crown buds secured. These are less likely to damp than those from a second crown bud selection. The specimens of F. S. Vallis were very fine. The brilliant crimson-scarlet of George Penford impressed one with the value of its handsome blooms for exhibition, and the gloriously rich yellow flower of Mrs. Greenfield stamps this sort as unsurpassed for the earlier November shows. The immense incurved Japanese blooms of Mme. Paolo Radaelli were finishing splendidly, and no doubt would be often seen

subsequently. Specially good, too, were numerous examples of the deep and richly-coloured W. R. Church. This variety was met with in various stages of development, and in beautiful form. Of Mafeking Hero there was a goodly array of exhibition blooms of high quality; and of the massively-built yellow blooms of J. R. Upton there were phenomenal examples of cultural skill. It is impossible in this brief notice to do justice to this grand display of exhibition blooms, suffice it to say that the collection as a whole was a splendid testimony to the excellence of the system of culture followed here.

D. C.

THE PICOTEE, WHITE AND YELLOW GROUND.

(Continued from page 380.)

ANOTHER quite new type produced at Hayes are the varieties with broad crimson margins. The best of these are Mazarin, Othello, and Dalkeith. Some of the very choicest of the most recent date are: Mrs. Walter Heriot, with rose-coloured margin; Acme, rose-red; Mrs. Fox-Pitt has large flowers, with reddish purple margin; Aladdin has a broad margin of purple; Merry Duchess, rose-red margin; Astarte, medium edge of reddish purple; and Lady Avebury, a fine variety with margin of light red. These are the latest introductions, and it may be well to give a list of twenty-five of the best older varieties; all of them are from the Hayes seed-beds: Alcinous, purple margin; Aldeboran, rosy scarlet; Amphion, rose-red; Argosy, rich scarlet; Borderer, bright red; Caracci, rose; Childe Harold, deep rose; Daniel Defoe, rose-red; Empress Eugenie, rose; Evelyn, bright rose; Gertrude, rose-red; Glee Maiden, clear rose; Hesperia, rosy lilac; Lady Bristol, deep red; Lady St. Oswald, bright red; Lauzan, purple; Mrs. Durrant, deep red; Mrs. Tremayne, scarlet; Mohican, rosy red; Onda, deep rose; Pamela, rosy lilac; Professor, scarlet; Voltaire, rose; Wanderer, rosy red; Pilgrim, red; and Xerxes, deep rose. The colours, of course, describe the margins only, and these are of various widths, narrow, medium, and heavy included.

CULTURE.

The culture of the Picotee does not differ materially from that of the Carnation. They are supposed by many to be tender plants which do not succeed well in the open garden. The varieties in cultivation before Prince of Orange came into existence were certainly of very poor constitution, but to the progeny of that variety and careful selection we owe the vigorous constitutioned varieties named above. The white ground varieties as a rule lack vigour, but all of them can be grown out of doors in the open garden, and, curiously enough, the most vigorous plants of the white ground Picotees I have ever seen were grown in the county of Northumberland in cottage gardens. They plant them out early in November. By that time the layers are well rooted, and the plants are established before severe frosts set in. I think October the best month. In my low-lying garden of heavy clay I find it is best to plant out in spring. For spring planting we pot up the layers in small flower-pots, and they are sheltered during winter in garden frames. In this position they require to be kept free from green fly by fumigating and also from decaying

leaves. If spot or rust appears on the leaves it is best to cut them off. March is the best month to plant out. The bed should be well prepared by having been well forked over in fine day; better not to touch it when the surface is wet, and select the first fine weather when the ground is fairly dry to plant out. An open position is best. High winds inflict less damage than they do most other things. As soon as dry weather sets in, in May mulch the surface of the beds with decayed manure. This prevents evaporation, and if June and July are dry months give a good watering once a week in heavy soil, and twice if the soil is sandy. It must, however, be freely admitted that the finest Carnation blooms are obtained from plants grown in pots and placed under a glass shelter of some kind. A greenhouse is generally available for this purpose. What are greenhouses usually filled with in July? The answer is: Scarlet Geraniums, Fuchsias, and other soft-wooded plants, whereas most of these things do much better planted out of doors. Surely a houseful of Carnations is preferable to such common easily-grown plants. It is a matter for the individual to decide. I prefer Carnations.

The autumn treatment of the plants is exactly the same as if they were intended to be planted out. In March they may be repotted, and it is easy to overpot them. About twenty-five years ago I began using pots $7\frac{1}{2}$ inches to $8\frac{1}{2}$ inches in diameter, and left off the use of 10-inch and 11-inch, and so successful was I that I beat the late Mr. Charles Turner and the late Mr. Dodwell in competition. (Alas! we have to use this term in reference to many of the exhibitors of those days. The late Mr. Norman of Woolwich grew the white ground Picotee to perfection. His blooms were unsurpassed and unsurpassable). Therefore use for two layers a $7\frac{1}{2}$ -inch pot, and for two of the stronger layers $8\frac{1}{2}$ -inch pots. The potting soil is of considerable importance. I use one of four parts good fibrous yellow loam, one of decayed stable manure, and one of leaf-mould. The best material to

keep the compost open is ground oyster shells. These may be obtained ready pounded or ground up. See that the soil is free from wireworm, as one of these pests may kill both plants. Pot firmly, and place the plants in frames, or they may be placed out of doors if the work is done late in March. Sticks must be placed to the plants early in May or even late in April, and in June take them in under glass and fumigate at once to destroy thrips.

J. DOUGLAS.

WINTER WORK.

SUMMER-HOUSES OF SIMPLE DESIGN.

THE English climate is often blamed for the fact that in our gardens one so seldom finds a really comfortable summer-house—or, as I should prefer to call it, out-of-door sitting-room—well-planned, well-placed, and in daily, hourly use during the warm months. Putting aside those stately mansions boasting immense loggias and porticoes, or elaborate and beautiful summer-houses set in the walling of ancient gardens (most of them impossible to sit in, by the way), and considering merely the average gardens of our average friends, what do we find on a summer afternoon? Usually we come on the family camping in a draughty verandah, or round (not in) a tent or a Japanese umbrella, or perhaps huddled into an angle of the house for shade and shelter from the wind. Occasionally we find a rustic structure of odd shape, and sometimes a shed-like building used as a storehouse for croquet mallets and garden chairs, while the people who should be enjoying its shelter prefer to bivouac outside. Clearly this is the fault of the summer-house and not of the climate, for in spite of all the latter's vagaries, people do sit out in their gardens a great deal in England. This being so, it is odd, and very characteristic of our national conservatism, that we have not long ago evolved something specially good in the summer-house way. But as we have latterly become so keenly alive to the delights which are to be extracted from even our humblest gardens, perhaps we shall also wake up to the possibility of im-



SUMMER-HOUSE IN DWELLING-HOUSE.

provement in one of the pleasantest aids to their full enjoyment.

The three most important points to be considered in planning any out-of-door sitting-room are shelter from wind and sun, accessibility, and size and arrangement. As to the first, aspect is all-important. East, if the situation is not too much exposed, is the best; next best are south-east and south. North is bad, but west worst of all, for the reason that at the time of day and year when the summer-house is most used the sun will be streaming in almost level, making an intolerable heat and glare. South is not nearly such a hot aspect for the summer, because in the daytime the sun is so high as to be easily excluded by a blind or awning, and by tea-time it will be gone. Naturally the position and nearness of trees giving shade might greatly modify the above considerations as to aspect. Wind is in this country a greater enemy of sitting out than sun, and the summer-house should be planned and placed so as to afford as much shelter from it as possible.

The second point—that it should be easy of access—is nearly as important as the first, for a summer-house that is close at hand will be twice as much used as the one which cannot be reached

show a summer-house of the best type—that is, an open-air sitting-room forming part of the general plan and structure of the dwelling-house. The aspect of the two arches is east, that of the single arch south. It enjoys a glorious view, only dimly shown in the picture. The brick-paved terrace with its low parapet wall and tube of flowers forms an excellent overflow-space when the party is too large to find room under the loggia itself, which will hold about eight comfortably (the maximum of the actual house-party). The south arch has a stout roller blind of green Willesden canvas to act as a screen from wind or sun when necessary. The loggia is comfortably furnished with basket chairs, an old Oak bench with cushioned seat, Oak flap-tables, and serviceable brown matting for the paved floor. It opens directly out of the dining-room, and not its least charm is that from June to mid-September one can breakfast there with as much ease and comfort as indoors, but with how much greater pleasure and enjoyment it is not necessary to say. On warm evenings coffee and dessert are served there, and through the long summer days the guests of the house virtually live in it.

Next to this ideal summer-house comes one which is most pleasant and not very costly or elaborate.

Cheap ready-made summer-houses of the simple shed type are to be had of almost any size or shape. For the short-lease tenant of small gardens they are by no means to be despised, and if all the money available for the purpose is put into a simple wooden structure of the plainest description, there is no reason why it should be an eyesore if painted a pleasant greyish-green and hung inside with plain matting. I know a small summer-house of this description which cost under £5, and has been a great pleasure to its owners for over five years already. J. C. C.

THE FLOWER GARDEN.

THE ÆTHIONEMAS.

A GENUS of low-growing plants, containing about fifty species, distributed over the countries of Europe bordering on the Mediterranean, Asia Minor, and extending into Persia. Europe claims nine species only, the headquarters of the genus being in Asia Minor. Probably about a dozen species are now in cultivation, although a few years ago the number was limited to three or four kinds. Beautiful and interesting little plants they are, deserving of more extended favour, several being quite hardy and easily grown. They are essentially rock plants, and generally found in open places in sunny mountains. Though some will succeed in the ordinary border, their true home is in the rock garden. Easily raised from seed, they should be planted in a sandy loam to which a proportion of lime in some form may be added with advantage. Most of the species enumerated below are in cultivation.

Æ. armenum is a dwarf perennial, freely branching from the base, 4 inches to 5 inches high, with short, linear leaves and racemes of light rose-purple flowers. A native of the mountains of Turkish Armenia and Capradocia.

Æ. cappadocicum, sometimes known as *Æ. Buxbaumi*, is a pretty annual, with erect, branching stems 4 inches to 6 inches high, and oblong, glaucous leaves. If the seed is sown in the open ground in March the pale red flowers are produced in May and June. One of the oldest *Æthionemas* in cultivation, it was introduced from the East in 1823.

Æ. cordatum, syn. *Eunomia cordata* is of a straggling habit, chiefly interesting for its racemes of yellow flowers, the only one with flowers of that colour in the family. Native of the alpine regions of Armenia and Syria.

Æ. coridifolium, syn. *Iberis jucunda*, is a most charming little perennial, suitable for the dryer parts of the rock garden. Shrubby below, the stems clothed with linear, spatulate leaves, attain a height of 6 inches to 8 inches, terminating in dense, rounded racemes of may lilac flowers in May and June. Native of rocky mountains in the East, it was originally found by Labillardiere upon Mount Lebanon, and afterwards by Kotschy in the Cilician Taurus. It first flowered with Messrs. Backhouse in 1871.

Æ. diastrophis. — A sub-shrubby perennial, forming in suitable situations bush-like plants 9 inches to 12 inches high and 18 inches in diameter. Very free flowering, it is a useful plant, its large, round racemes of pale rosy lilac flowers being produced in abundance from June to August. Native of the mountains of Armenia.



ARCH LOOKING SOUTH.

without a journey over damp lawns or hot gravel paths, and meals will be taken in it much oftener if they have not to be carried far. Best of all summer sitting-rooms is one which actually forms part of the dwelling-house; and those who are about to build should have no difficulty in planning a delightful one. But it is often possible to add a little shelter to an old house, perhaps in some angle or recess of the building, suited to the purpose.

Unfortunately, many houses already possess that most unsuitable and useless of appendages in this climate—a verandah. Sometimes an end of it can be used, but generally it is too narrow to be more than a passage, and too high and open to give shelter from sun and wind, merely serving in fact to shut out light and air from the windows of the house.

The third point in considering a summer sitting-room—viz., its size—must be determined by the depth of purse and the requirements of the intending owner, but it should be remembered that to build it too small is to render it practically useless; 10 feet by 6 feet is a minimum for two or three people and a tea-table, and this will be found rather cramping even for that small number. But to descend from the general to the particular and to come to the illustrations. The two photographs

The sketch explains the plan and arrangement better than a written description would do. The projecting part with a pergola top makes light and airy what would otherwise be too dark and closed in if the roof extended over the whole space, and it will be noticed that an ordinary verandah, such as one often sees between two bow windows, is turned, by the addition of this trellis-roofed platform, from a useless excrescence into a pretty and habitable out-of-door sitting-room.

Then comes a detached summer-house of an ordinary type, only rather more comfortable than usual. It can be built of almost any material. This particular one belongs to the "rustic" order, made of Larch tops sawn down and nailed to a Deal framework, and it is match-boarded inside. Not a very artistic method, but clean and durable. The roof is thatched with Heather, and the floor is of wood blocks set on concrete. The window at the back was an afterthought and a great improvement, as it enabled people inside to read or work in comfort; and it could be opened to give extra freshness in hot weather. The fixed flap-table was not a bad arrangement where economy of space was an object. This summer-house was put up by a small local builder, and cost about £18.

E. gracile is found on stony mountains in Greece and Macedonia. It grows only a few inches high, with narrow, linear leaves and crowded racemes of light purple flowers.

E. græcum is a perennial with numerous branching stems 6 inches to 8 inches high, small ovate leaves, and light purple flowers in March and April. From the calcareous mountains of Greece.

E. grandiflorum.—One of the most handsome of the whole genus, this shrubby perennial forms a spreading bush 1 foot to 2 feet high, covered with a profusion of long racemes of rich rose-coloured flowers. Planted in a sunny position so that its half procumbent stems fall over a stone rather high up on the rockwork, it produces a pleasing effect, and is well worth a place in any rock garden. This species will succeed in a border in light, sandy soil, but shows to better advantage in the former position. Found on Mount Lebanon and in Persia, it was introduced in 1879.

E. iberideum, syn. *Iberis brachystyla*, differs from all the other species in its compact caespitose habit. Forming neat tufts of foliage consisting of procumbent stems from which arise axillary branches 2 inches to 3 inches high, it makes a pretty plant with its racemes of fair-sized white flowers. Native of the alpine regions of Anatolia and Cappadocia it has proved quite hardy in this country.

E. pulchellum.—A comparatively recent introduction, somewhat resembles *coridifolium* with narrower and longer leaves. It is one of the prettiest and most free-flowering species, quite hardy in dry positions. Growing 6 inches to 8 inches high, it is slightly shrubby at the base, with glaucous foliage and numerous racemes of light rose-coloured flowers. This species and *E. iberideum* are also suitable for growing in pans for furnishing the alpine house, remaining in flower for a considerable time in spring. Found on mountains in Turkish Armenia, Kurdistan, and Persia. Under the name of *E. persicum* a form of this species is also in cultivation.

E. saratile.—The Candy Mustard enjoys the distinction of having the most extensive distribution of any species belonging to this genus, being spread over the southern countries of Europe from northern Spain to Montenegro. Rock loving, this pretty annual grows about

6 inches high, bearing loose racemes of purplish flowers in May and June. It was introduced from Spain in 1820, and was probably the first species of this genus brought into cultivation.

E. schizotum.—A perennial of dwarf branching habit 4 inches to 5 inches high, with dense linear foliage, and racemes of light rose-coloured flowers. From the Cilician Taurus.

E. thomasi.—A tufted plant, shrubby at the base, with somewhat fleshy, elliptical leaves and purplish flowers. Of limited distribution, it is found in the Val di Cogne above Aoste in the Piedmont. Most of the above produce seed freely, which may be sown in spring, and the shrubby kinds can be propagated by means of cuttings, which root readily.

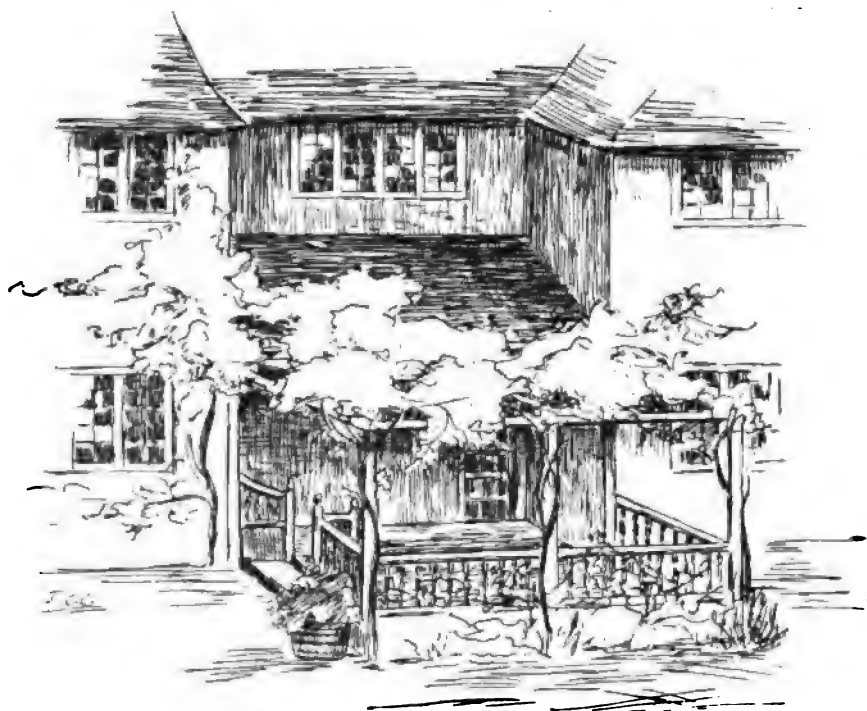
W. IRVING.

CHRYSANTHEMUMS AS BORDER PLANTS.

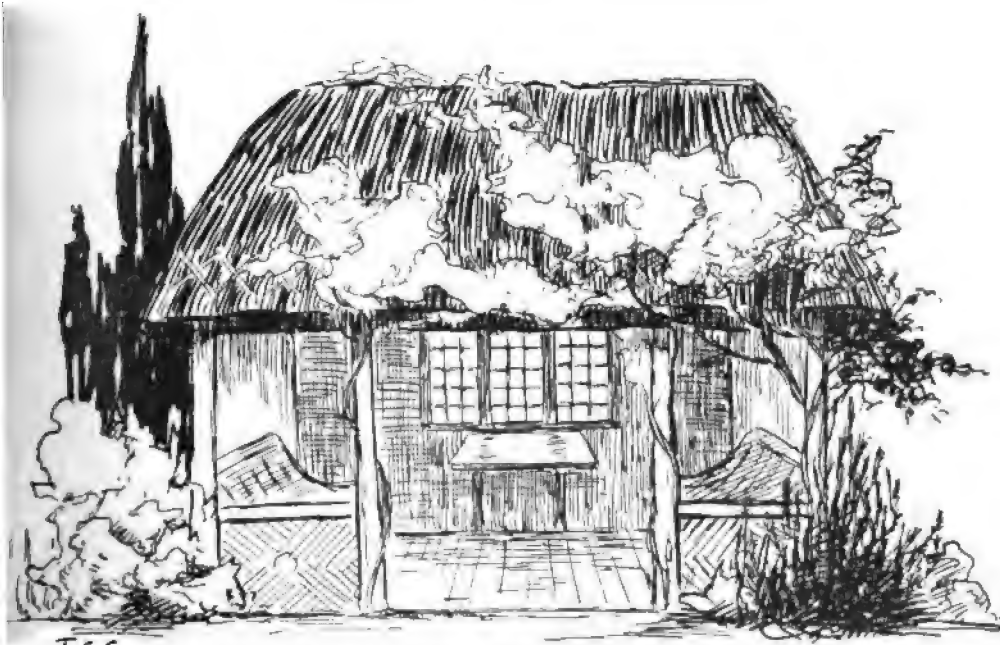
On the Sussex coast frosts are seldom severe before the middle or end of November—six weeks later than in many inland localities—and numbers of cottage gardens are pictures of brightness and colour with Chrysanthemums of all kinds just now, when flowers out of doors are especially welcome. By no means do the owners of these gardens

confine themselves to the small and hardy Pompons, though these are popular with some, nor even to the robust varieties of the Cottage Pink type—a pretty and vigorous kind which always holds its own in the open border wherever it may be found—but great bushes of *Source d'Or*, *Lady Selborne*, *Margot*, *Cullingfordii*, and other larger-flowered varieties of all shades of pink, crimson, bronze, gold, and white are in full flower now (the 16th inst.), and will probably last in beauty for two or three weeks longer. Chrysanthemums seem to be looked upon hereabouts as cottagers' flowers, as they are certainly not in fashion in more pretentious gardens for outdoor decoration—greatly to their own loss. A selection might easily be made which would give abundance of good flowers from September onwards, outlasting even the "Farewell Summers," the pretty old name given by our forebears to Michaelmas Daisies. The present, no doubt, has been an exceptionally favourable season for Chrysanthemums in the open, but in this locality they seem to flower well every year, with the difference merely of being out off a little earlier or a little later according to the kindness of the season. In cottage gardens, as a rule, there is no question of any artificial protection—plants of all kinds just take their chance—but it is easy to see where care and cultivation have been given during the summer and where withheld. Sheltered gardens, of course, have the advantage over those that are wind-swept, as many on our south-east coast are, but even in exposed positions the narrow borders under the walls of the cottage, which are often overshadowed a little by the eaves, are made gay and bright with these favourite flowers.

Twenty years ago people were sighing for large-flowered Chrysanthemums hardy enough for the open border. At the present date there is no lack of early and midseason varieties from which we may make our choice. Even in some of the more northern nurseries many of the stronger sorts have done so well for flowering out of doors that some firms are making a speciality of them, which is a movement strongly to be encouraged. Invaluable as Chrysanthemums are under glass as pot-plants in November and December, they are no less so in the earlier autumn garden, and their usefulness and beauty for all favour-



SUMMER-HOUSE WITH PERGOLA.



SUMMER-HOUSE WITH HEATHER-THATCHED ROOF.

able localities can scarcely be over-rated. There is no reason why both ways of using them should not be adopted in the same garden now that the choice of varieties is practically unlimited, but it must be done with judgment. We are all beginning to realise that there is neither good art nor good sense in growing floral mop-sticks, and it is much to be desired that the late expression of sound public opinion against abnormal bigness in flowers as well as in fruits and vegetables should receive the consideration it deserves from the growers. A tithe of the labour and attention devoted to the production of huge Chrysanthemums, if it were given to their open-air culture in suitable positions, would be repaid a hundredfold, for they could not fail to be appreciated by every true garden-lover. As a matter of fact, many people nowadays are growing very weary of Chrysanthemums, cultivated as they too often are as mere furnishing for the conservatory,

and it is a thousand pities that flowers so admirable in themselves and so pre-eminently useful should be brought into disrepute. It is the fatal over-production in every sense of the word that is the cause of the reaction which is unmistakably setting in against one of the most beautiful gifts of Nature, and for which Art has also done so much, and it is just as well that both the raiser of new varieties and the gardener should be reminded that art when it becomes artificial has reached its utmost limit.

K. L. D.

MISTAKES IN PLANTING BULBS IN GRASS.

GROWING bulbs in this way is one of the most fascinating phases of gardening, and rightly so, seeing that in no other way can such natural results be obtained. And this especially applies to fine country gardens. Few places exist in which some

spot cannot be found for bulb growing in grass. Added to this, it may be done at so small a cost compared with many forms of gardening, and when knowledge is brought to bear on the sorts planted, and given proper treatment, they go on for years, in many instances improving with age.

While this is so, a very large number of growers use no judgment at planting time. When the time comes for mowing the grass, then they wish to get rid of the unsightly foliage, clearing it away long before it has done its work. The next year these bulbs do not flower, and grass gardening is given up as a failure. For years I have been studying the question as to the best time for removing the leafage, and I see no reason why the earlier flowering bulbs should not be planted where the grass must be mown at the end of April and early in May, but to plant late-blooming things in such positions is unwise.

Spring flowers in the grass are one of the charms of these fine old grounds; and I have been noticing what time the grass may be mown, and therefore the bulb foliage removed as well. I have found that Aconites, Snowdrops, and Crocuses are ripe enough by the first week in May. The Aconites may be removed a week or so earlier. Narcissi vary very much, seeing they bloom from early in February till midsummer. The common Lent Lily is the first to bloom, and I have gathered flowers the first day or two in that month. This grows extensively in our grounds and in the fields here.

Maximus, Golden Spur, and others of this type ripen off about the third week in May, the double yellow also, and many others that bloom with these; incomparabilis, both single and double forms, with many of the bicolors, blooms a week later. Following these are such sorts as rugilobus, biflorus, the pheasant-eye types, the double Gardenia being last, and with us it is not safe to remove its foliage till the end of July. Of course, if this latter sort is growing in a warm spot it will be a fortnight earlier in bloom, and foliage accordingly.

It will be readily seen how necessary it is that only the early-blooming sorts be planted within sight of the dwelling-house, where the grass must be made tidy early in the year. Scillas, Dog's-tooth Violets, and many bulbs thrive in this way, and should be planted according to the time of flowering.

In our garden we have them in this way, and can generally use the big horse mowing machine. About the middle of May sorts that bloom later are growing in positions at some distance from the Abbey, where the tall grass is not an eye-sore, or in positions under deciduous trees, and here the grass does not grow early.

The very latest sorts are grown where the grass does not need mowing till early in July, and the double Gardenia flowered are also in groups amongst shrubs, &c., at the edges of beds and borders.

Among the most beautiful spots in our garden are a sunny nook, where Narcissi, Crocuses, and Snowdrops are grown in the grass, and a bank of Scolopendriums, with Snowdrops amongst them. Nature has mixed with them both the common and red Primroses. When all are in bloom the sight is charming.

Another mistake is to plant these bulbs and to mow around them. I saw this tried in a large garden last spring with a most unnatural effect. About two years since a big tree was blown down near the Abbey where some late-flowering bulbs were growing. This opened up space, necessitating mowing the grass a month sooner. I tried leaving the foliage, but the result was not pleasing. I intend taking up the bulbs.

In many grounds there are large deciduous trees growing within sight of the mansion. In spring the ground is bare, but Aconites, Snowdrops, early Scillas, &c., may be grown there. I know a garden in West Norfolk where they are delightful in this way.

We have a large Lime tree here, under which is growing a carpet of Saxifraga granulata fl.-pl. (the double Meadow Saxifrage), and every spring it is a sheet of bloom. Personally, I consider the early



CHRYSANTHEMUM KITTY BOURNE.

(Colour, yellow.)

Shown recently by Messrs. Wells and Co.,

Littleport Nurseries, Rotham, at Royal

Horticultural Society and given

an award of merit.

grass is no detriment to appearance when not close under the eye, and what can be more beautiful than a mass of Daffodils, Tulips, and Hyacinths waving in the grass. This helps to hold them up. Many other plants do quite as well when in groups, &c., but with most things of this kind their leafage must be allowed to remain.

In autumn, again, spots may be made gay by using Cyclamen, choosing good positions. The same may be said of autumn-blooming Crocuses (*Colchicum*), which last in bloom for over two months. Now (end of October) *C. byzantinum* is in full bloom. I have some patches where the early Meadow Saffron and mixed Narcissi are growing together in a wild garden. When the leafage of the latter is ripe the grass is cut. This grows again in time to support the Crocus blooms. Other things could be named did space permit.

Forde Abbey Gardens, Chard. J. CROOK.

CHRYSANTHEMUM KITTY BOURNE.

SINGLE-FLOWERED Chrysanthemums are rapidly increasing in favour, and rightly so, for they are invaluable both as garden flowers and also for decorative purposes. Some good new varieties have been lately shown, and Messrs. W. Wells and Co., Limited, Redhill, have been large exhibitors. They have done much to improve the single-flowered Chrysanthemums. The variety shown in the accompanying illustration, Kitty Bourne, was given an award of merit by the Royal Horticultural Society on November 10, when exhibited by Messrs. Wells. It bears rich yellow, showy flowers, and grows about 3 feet high, the flowers all, or nearly all, coming to the same level. H. T.

NOTES ON HARDY PLANTS

ANEMONE ALPINA IN THE ALPS.

AMONG several photographs kindly sent to us recently by M. Correvon was one of *A. alpina*, which we reproduce. Though one of the commonest species in alpine districts, being found on almost every mountain in Southern Europe, it is by no means so plentiful in gardens as one would suppose. This may in a measure be accounted for by its slow growth, its dislike to being disturbed, and the probability of its being what we call a short-lived plant. It is a variable species, and has a large and complicated synonymy, so many botanists having named the newest varieties and classed them as species. The most distinct variety known to us is called *Sulphurea*. The flowers in this plant are pale lemon or sulphur. It makes a charming border plant, beautiful in flower, and also in seed, the bunches of long feathery tails being very effective in autumn. The type grows from 1 foot to 2 feet in height, forming long strong roots, which require a deep, well-drained, rich soil, and a quantity of old mortar mixed with it. The flowers are white, pale purplish outside, distinct, and showy; the leaves of both are deeply cut, fern-like, and effective when grouped. It flowers in April and May.

IRIS STYLOSA MAGNIFICA.

ENGLISH gardeners are just awakening to the fact that *Iris stylosa* is one of the most precious winter-blooming plants we possess. One of the causes of this tardy awakening is the fact that the form most generally grown in England is the smallest and the shyest blooming one possible, of a really desirable plant. For many years I struggled, with many others, to coax a few stray blooms from big masses of leafage under a sunny wall in the North of England, and it was not till I saw the various forms grown in southern gardens that I realised how greatly superior, both in quantity and size of flower, were the forms known as *superba* and *magnifica*. The plant seeds so abundantly that in



THE ALPINE WINDFLOWER (*A. ALPINA*) IN THE ALPS.

a seed-bed there are endless variations of size and colour of flower as well as of size and breadth of leaf, but none flowers so profusely as this variety, which is known to me as *magnifica*. The white form of *Iris stylosa* is best under glass in England, and for edging a cold fruit house or corridor there could be no better plant for winter-out flowers. This plant is also a true lime lover, and will grow in nothing but lime rubbish if need be.

Nice.

E. H. WOODALL.

CULTURE OF THE CALOCHORTUS.

WHOEVER has a garden and has examined the flowers of the *Calochortus* cannot but wish to grow some of them. Their cultivation is very easy, and requires no particular care. The genus *Calochortus* (Pursh), including *Cyclobothra*, belongs to the family of the Liliaceae, and comprises more than twenty bulbous plants, indigenous to America, from the North to Mexico. The flowers are disposed in bunches or in umbels; they are pendent or erect at the end of long peduncles.

Flowering takes place in July and August, and continues for a longer or shorter period according to the species. In France these plants are almost unknown, but they can be obtained at moderate prices from the principal seedsmen.

The *Calochortus* by no means deserves the reputation it has acquired of being delicate and susceptible to cold. In their catalogue M.M. E. H. Krelage and fils of Haarlem, Holland, thus speak of it:—

"These are plants of easy culture and perfectly hardy. They are planted from the beginning of September to the end of November in the open air, at a depth of 7 or 8 centimètres, and at the same distance apart. The position should be exposed to the sun, preferably at the foot of a wall with a southern aspect, and well drained. A sandy soil is best. A covering of rushes, or something of the kind, is indispensable during the winter. The beauty of the flowers is incomparable, and the variety and richness of their colours seem illimitable." We followed the advice of M.M. Krelage. The selection which we received last October was planted in the open air, in a border sheltered by a wall and exposed to the east; the soil was light

and sandy. The bulbs were buried to a depth of about 5 centimètres, and, with other bulbous plants, the *Calochorti*, at the approach of cold weather, were again covered with a layer of straw manure to the depth of another 5 centimètres. We obtained very beautiful flowers during the following July, without having given any care to the plants except a few waterings and weeding. These plants, which are so adaptable, assuredly deserve to be cultivated, and to cultivate the *Calochortus* is to assure to one's self the pleasure of having a supply of elegant and brilliantly-coloured flowers, which, though rare, have the great merit of being attainable at a price within the means of all.

JULES RUDOLPH, in *Revue Horticole*.

THE INDOOR GARDEN.

CHOICE ZONAL PELARGONIUMS.

ZONAL Pelargoniums were superbly shown by Messrs Veitch and Son and Cannell and Sons at the meeting of the Royal Horticultural Society at the Drill Hall on the 24th ult. It was seen what large size and superb quality characterised the flowers, and one was almost disposed to ask, Can improvement go further? Culture and skilful treatment have done wonders, and in the autumn months it can be noticed that many of the deeper tints of colour take on a greater intensity in the waning days. Among the new varieties of the present year were *Beauty of Kent*, the centre bright crimson, the florets margined with white, an effective combination, pips of fine form and excellent habit of growth; *Duke of Connaught*, magenta-scarlet with white eye, fine form of pip and good habit; and *Countess of Dudley*, orange-scarlet with a distinct white centre, finely formed pips produced on enormous trusses, and excellent habit.

Of the older varieties, crimson and scarlet shades were represented by *Princess of Wales*, bright rosy cerise; *Scott-Turner*, pale crimson with distinct white eye, one of the best of the winter flowering varieties; *The Mikado*, soft cerise, extra fine; *Hall Caine*, brilliant cherry-red, very fine pip; and *Chaucer*, a superb variety, of a

clear cerise-scarlet shade, pipe very large and of fine form. Of salmon and blush shades two were very striking, viz., Countess of Hopetoun, bright salmon, margined with white; and Lady Roscoe, a lovely shade of delicate blush-pink, both extra fine. Mrs. Ewing and Barbara Hope are both very pleasing shades of pale salmon, the former especially highly refined. Mary Seton belongs to that section in which the marginal colour is of a bright vermilion-scarlet, the large white centre suffused with lake, one of the best of the winter bloomers. Pink shades are very pleasing, and two varieties in particular are among the best, namely, Mrs. Brown-Potter, clear bright pink, extra fine quality; and Mrs. Williams, clear rosy-pink, with more white in the centre, large in size and of fine form.

There are several white varieties, and the three finest appear to be Snowstorm, pure white, extra fine quality, large stout pip, smooth and substantial; Mary Beton and Snowdrop both excellent varieties and very free. The general collection is so very fine that one might readily add to the varieties above named.

R. DEAN.

RICHARDIA (CALLA) ÆTHIOPICA.

THE usefulness of the Calla is well known, so I need not refer to it. We see various ways of growing this plant, some giving a greater amount of success than others. The treatment it undergoes here very successfully will seem to some readers to be rather neglectful in the way of potting. Three years ago this autumn, plants arising from three rhizomes were potted into 10-inch pots, and have not been disturbed up to the present. During nearly the whole of that period, I am told, they have constantly been throwing up spathes, and at the present time two or three can be seen in each pot.

Water and manure are liberally used at all times, never allowing the plants to become dry, but keeping them constantly in a growing state. This treatment does not tend to weaken their constitution in the least, as the flowers which are being borne now are unusually fine.

Buxted Park Gardens.

F. B. F.

GARDENING OF THE WEEK.

FLOWER GARDEN.

THE MONTHLY OR CHINA ROSES.

BEFORE the planting season is too far advanced I must say something in favour of these old favourites of days gone by, for while many of our Hybrid Perpetuals have failed us this season, this lovely race has proved quite a garden in itself, and the only really perpetual Roses we have. There is hardly a month in which they have not flowers or buds, and their shining evergreen leaves are so cheerful in dull wintry days. The pink Monthly Rose is the one best known, never failing to give the earliest and latest bunch of Rose buds, but besides this well-known favourite there are many other varieties of vivid hue—crimson, carmine, and rose—and some of them this season have a blue lustre in their leaves, which is very charming, even if they never produced a single blossom. These Roses have not only a constant succession of bloom to recommend them, but they possess a power of endurance which does not belong to the hybrid varieties. This fact is proved by their being found still healthy in gardens after having been planted fully forty or fifty years. These Roses do not require the gross feeding as many others, and are therefore most useful for making permanent beds, among which spring bulbs can be planted with great success.

THE WINTER CHERRY.

This should be more grown for winter decoration than it is. One of the most remarkable of all the new introductions from Japan, however, is *Physalis Franchetti*, which has fruits as large as duck's eggs and of a charming shade of red or orange-vermilion. When seen in the sunlight or by lamplight the inflated calyces are very brilliant, and look like

miniature fairy lamps or diminutive Chinese lanterns as seen amid their own soft green leaves or as tastefully arranged with other suitable foliage. A bed on the grass with *Physalis Franchetti* in the centre, and a belt or circle of *P. Alkekengi* around the outside, makes a very fine feature at this time of the year. Both sorts are perfectly hardy, and, when once well established, all the attention necessary is to keep the beds free from weeds and give a rich top-dressing over their roots every autumn. Now is the best time to plant, and if carefully done a good display may be looked forward to the following autumn.

BORDER AURICULAS.

Where the soil is light autumn is the best time for transplanting Auriculas. It often happens that plants remain for many years in the same place and become large clumps, with their stems much exposed. Where these received a liberal top-dressing of old pot soil in the spring, they will now be ready for cutting hard back, and every portion with new roots attached may be dibbled in to form clumps of some five or more. Thus large patches are soon formed that remain good for two or three years. Auriculas do well generally in ordinary soil, yet, where it is stiff, a good admixture of sand or grit is helpful, and some well-decayed manure is so in all cases. In planting it is well to fix the soil about the young plants firmly; they are very hardy, and will stand with impunity the most severe winters.

Ashwellthorpe Gardens, Norwich.

T. B. FIELD.

FRUIT GARDEN.

HARDY FRUITS.

THE soil is now sufficiently dry for the first time this autumn to do all the root lifting required by garden trees, the object being to keep all the best and most fruit-giving roots near to the surface, within easy reach of solar warmth, which alone ripens the wood and consequently develops the perfect organs of the flowers within the swelling buds. We find it absolutely necessary to lift annually the extremities of the roots on all our Peaches, Nectarines, and Apricots growing on walls, giving a few barrowloads of fresh loam, old mortar, and bone-dust, doing the work when the soil is in a friable and rather dry condition, taking care to make the borders very firm again when completed. Get all pruning and nailing pushed forward during the prevalence of mild weather, as, independently of the fact that the men can do more work, the ground will be clear of refuse for the reception of manure when suitable weather for wheeling sets in. Now is the time to unnaill all the Cherries preparatory to pruning and washing with a strong solution of Gishurst Compound or any other insecticide most in favour. When dry tie the shoots together in small bundles, secure them to stakes, and wash the walls if old and full of nail-holes, with strong brine, lime water, or the composition recommended in a recent article upon hardy fruits. Where labour is equal to the demand the same treatment applies to Plums, Apricots, and in some cases to Pears, but where the latter are quite free from scale they may be nailed in without delay. When

PRUNING OLD TREES

it is a good plan to thin out the spurs and to scrape the Moss and Lichen off the branches for the twofold purpose of letting in warmth and air to the fullest extent, and increasing the size and quality of the fruit. Trees on the Quincestock soon become one mass of spurs, and unless annual attention is paid to this operation the fruits on many of the sorts become small and gritty. The root run being limited, mulching with good rotten manure is an important factor in the production of fine fruit; but as this annual dressing would soon raise the borders inconveniently high, the difficulty may be got over by casting the whole mulching over the border to be forked in for vegetable crops and by replacing it with fresh from the frame ground. If it is the practice to unnaill the trees every winter the sooner it is done the better. Get Raspberries staked and tied ready for mulching, but defer cutting off the tops until the buds begin to swell in the spring. Untie Figs, rub off

the half-swollen fruit, and tie the shoots together in bundles. Have protecting material ready, but do not apply it during continuance of mild weather.

Madresfield Court.

W. CRUMP.

KITCHEN GARDEN.

HORSE-RADISH.

DURING spells of open weather those roots that have been longest planted should be lifted, and after trimming off all side roots they may be bedded thickly in a spare piece of ground in the open for use as required. Some rough litter should be placed over them when frosts prevail, in order that they may be readily got at when the ground is frozen hard. Thick tender sticks may easily be grown in one or at the most two seasons, whereas those that are longer coming to a useable size become hard and strong flavoured. The ground intended for growing this crop must be trenched and plenty of rich manure and burnt garden refuse incorporated with it; the thongs or thick side roots make the best sets. These should be broken off at lifting time about 8 inches in length, and bedded thickly upright in trenches for the winter, covering with 3 inches of soil. The thickest end must be uppermost, as the future crown will here be formed. They may be planted in the prepared ground in March, and will make good-sized sticks the following winter.

THE ROOT STORE.

Frequent attention will be necessary in looking over Potatoes, Carrots, Beet, Turnips, Onions, and the like on wet days. Those showing the least signs of decay or disease must be removed and destroyed or they will contaminate others. The insides of the wall should be lined with a good thickness of clean straw to keep back frost, a good covering of similar material should also be kept on the top of the stack of roots.

EARLY FORCED POTATOES.

A few tubers of Sharpe's Victor or Ashleaf may be put into a vinery that is being started for the production of a few dishes of extra early Potatoes. Place a layer of rough leaf-soil in the bottom of a shallow box and stand the tubers nearly upright thereon, with the strongest sprout at the top; all others should be rubbed off. The gentle warmth and light syringings maintained for the vines will cause the Potatoes to start into growth, and when the white roots permeate the leaf-soil they may be carefully taken out and potted up, three in a 10-inch pot of rich, warm soil and grown on in the same structure.

FORCING HERBS.

Tarragon, Mint, and Chervil are generally in request during the winter, and a regular supply of green shoots should be kept up; small pieces of the roots of the two first-named will give better results for forcing than whole clumps. They may be taken off with a knife and inserted as rooted cuttings in pans or boxes of light, sandy soil and placed in a forcing-house. When the young shoots are well through the soil another batch should be put in to maintain the supply. Chervil that was raised from seed sown late in summer may be carefully lifted and transplanted in boxes, and placed in a cold frame for picking when the plants in the open are frozen or covered with snow.

Stonleigh Abbey Gardens.

H. T. MARTIN.

INDOOR GARDEN.

THE gardener's duties will now comprise a general survey of his department, and he must convince himself, as far as it is possible to do so, that he has made provision for all reasonable emergencies, and that the appliances and apparatus for the indoor garden are in good sound trim for the coming winter. Boilers and pipes should be looked over as closely as it is possible to do when surrounded with brickwork, as they generally are, and see that no leaky joints are overlooked; all valves must be examined and put in free working order and properly packed. The

COLD WATER SUPPLIES.

as there are generally two, must be tested and placed in good working order; pumps and out of

door taps should be protected in such a way as will enable them to defy an ordinary frost; all glass structures should be carefully gone over, and every bit of broken glass repaired. See that the spouting on the eaves of the houses and also the stack-pipes are perfectly clear, so that no obstruction can occur during frosty weather. A sufficient supply of covering and protecting material should be in readiness and quite dry, as this condition makes all the difference in its efficiency for the protection of cold pits and frames, without which these very useful structures lose so much of their usefulness. Plant stoves and other houses where high temperatures are necessary should be provided with Frigi Domo coverings or blinds, and thus avoid all undue radiation of heat. In the fixing of these the roller should always be placed at the top close to the ridge of the house, so that the coverings are drawn—not rolled up—and in this way making it much easier to keep the coverings clear of snow and dry, so that they are more perfect conservers of heat. This provision is sound economy, and will generally save more than its cost in one year. Also attend to having a good supply of the different kinds of soil, loam, leaf-soil, and peat, also sand and charcoal stored in sheds where it can be kept dry, and to a large extent free from frost and in condition for use at any time. A good stock of

WOOD STAKES

of various sizes and lengths should be in stock, the pointing and painting of which should be reserved for bad weather. As far as possible keep all empty pots stored under cover, where from time to time they can be washed and be ready for future use. These and other matters which will suggest themselves to the gardener should be put in order before the period for bad weather is quite upon us.

Wendover.

J. JACQUES.

TREES AND SHRUBS.

ERINACEA PUNGENS.

AMONG the many plants in Canon Ellacombe's garden at Bitton, near Bristol, that lead to the breaking of the Tenth Commandment by his visitors, is a charming specimen of this rare and beautiful shrub. It

is a leguminous plant, allied to the Broom and Furze, but with blue flowers. Blue is not common in the flowers of our hardy trees and shrubs, and among the woody legumes it is very rare. This *Erinacea* is a particularly spiny low shrub, which, I have read, grows so thickly on some of the mountains of Spain that horses can scarcely make their way through it. It is curious that it is so little known in this country, for in the south at least it is hardy. To make it flower it should have the sunniest position that is available. During the series of hot seasons previous to 1902 it bloomed very charmingly. It is not easy to propagate, as it produces seeds sparingly. Canon Ellacombe, however, has managed to increase it by layering.

ESCALLONIA EXONIENSIS.

FOR most of those whose gardens are situated in cold or northern localities the evergreen species of *Escallonia* are of little use, unless they are prepared to devote wall space to them. There are few things that make one envy the Cornwall gardeners more than their magnificent specimens—even hedges—of *Escallonia*. The hardiest of all the species is *E. philippiana*, but that is deci-

duous. It has, however, been hybridised with one of the evergreen species, and the result was *E. exoniensis*. This hybrid is quite evergreen, and has, fortunately, inherited some of the hardiness of *E. philippiana*; it is, so far as I know, the hardiest of the evergreen sorts. In the London district it is only the very severest winters that affect it. It is a shrub of free, graceful growth, its abundant foliage being of a deep and glossy green. The flowers are in terminal spikes, and are white. Commencing to appear in July, they keep on till the frosts come, and in mid-November one might have cut a bouquet from the bushes.

W. J. BEAN.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

OVERGROWN FLOWERS, FRUITS, AND VEGETABLES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The question touched upon in the lecture on this subject given recently before the Royal Horticultural Society is probably the most difficult that judges at shows have to contend with. It is undoubtedly a fact that in many instances the exhibits gaining the highest awards are proportionately larger than we should like for our own table. Yet, taking the matter as it stands, we must recognise the fact that the prizes are offered for the best results of cultural skill. Provided that the examples shown are perfectly uniform and otherwise of the best possible quality size must count, otherwise we should do away with cultural skill. In the matter of vegetables there is one way out of the difficulty. Take Potatoes for an example. If the prizes were offered for the best twelve tubers (or more or less), these to be confined to a given weight, the matter would be easy. It would be a simple matter to treat other vegetables in the same way, but this would be a great revolution of all previous considerations in respect to the merits of vegetables on show, for while it is now almost universally conceded that rough or coarse samples do not count for much,

size, with good quality combined, must take the lead. It is just the same in judging flowers. We have come to the time when size alone does not count, though I am afraid some judges still give too many points to size. Yet perfect but smaller flowers and of good colours stand a great deal better chance than formerly.

A judge of some authority remarked, in giving a lecture lately, that size should not be the sole object of an exhibitor, but perfect form and good finish should be studied. There may be some who remember the time when the Pelargonium Society flourished. Such men as Shirley Hibberd could see no beauty in a flower that was not perfect in outline and in markings, no matter how pretty the colour or how freely the flowers were produced, and, while I admired such perfect flowers, I must say that a profusion of bright bloom on a well-grown plant is more effective. The question of quality *versus* size is a complex one, and I am afraid there are many difficulties in settling the various points. We can confine plants to certain sized pots, and vegetables to a certain weight, but how is the latter to work with regard to cultural skill? And the same question may be asked in regard to size of flowers. Is there anyone who would say that, provided colour and finish were equal, the largest bloom of any *Chrysanthemum* should not take first honours, or even with *Begonias*, *Roses*, or *Carnations*? Size must count as long as we hold exhibitions or invite competition in cultural skill.

A. HEMSLEY.

P.S.—Is it not the same with regard to the competitions at cattle shows? Many of the beasts gaining honours are much fatter than one would like for ordinary consumption.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—There are few of the commoner vegetables to which the question of size *versus* quality more closely applies than Cabbages. Not so many years ago everyone grew large ones, seeming to think that the highest merit was found in big, hard, white heads. But while these large ones, even with the best of cooking, always show hard texture, their undue size greatly militates against cooking, and what natural flavour Cabbages may possess is largely dissipated when the heads are cut up into several portions to enable them to be cooked. We are wiser now because the introduction of small, sweet, tender heads that can be



ERINACEA PUNGENS.

cooked with ease and quickly has taught us that these varieties are far better to grow than are the large ones. We can grow three or four sweet, small heads where one big one needed the room. Being quick of growth they come to maturity all the sooner and are all the more tender and better flavoured, hence here size and quality are antagonistic. Even from the cultural point of view small Cabbages are more profitable to grow than large ones. A. D.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—With the lecture given at a recent meeting of the Royal Horticultural Society and the remarks made in the issue of THE GARDEN for the 14th ult. I am in full agreement, as I think most people will be who believe that the first consideration of a cultivator should be quality and not size. But if there is need of reform, there must also be a reason why an unsatisfactory state of affairs exists, and in the case of vegetables I think the cause may be found in exhibitions. No man purposely sets out to produce a huge vegetable for his own table or that of his employer, but he grows the big things for show. Why? There can only one answer—to please the judges. Now if that cultivator and exhibitor knew perfectly well that his large vegetables would be passed over in favour of others of ordinary table size, is it likely that he would show them? Not a bit of it; but so long as size is encouraged on the show-board unduly large vegetables will be grown and exhibited.

I believe it was for the purpose of checking this tendency and setting up some kind of standard that the Royal Horticultural Society's judging rules were formulated. If these rules are read at all it is obvious that they are not adopted in many cases, or there would be fewer first prize cards found resting on coarse and overgrown vegetables. In the midst of all this muddle the man who occupies the most unsatisfactory position is the exhibitor, because he does not know what to do. He has no idea whether the judges will favour large or medium-sized specimens, and if he stages for size he may have the doubtful satisfaction of learning that if he had exhibited the smaller produce he left at home he would have won, and the same the other way about. It should be remembered that the exhibitor's object is to win prizes, and it is only natural of him to stage the kind of produce most likely to effect the purpose. My contention is that we want reformation amongst judges even more than amongst growers of vegetables, and if produce were judged in every case by the same standard, which, of course, should favour quality in preference to size, the necessity of preaching crusades against overgrown vegetables would soon be done away with.

But, unfortunately, size is positively encouraged at a large number of shows. Only recently I visited one of the largest autumn shows in the North of England, and in looking over the vegetables I noticed that in almost every case the prizes were given to the biggest, and examples that any sane person would pick out at once for his own consumption were entirely looked over. What effect will this have? Next year the exhibitors will probably attempt to show the biggest vegetables they can produce, and if they do I fail to see how anyone can blame them. It may happen, however, that the judges at this particular show will be changed next year in favour of others who do not consider size a first consideration. If so the exhibitors of large vegetables will find themselves out of it, and I will leave the reader to judge the state of uncertainty they will be in as to the class of produce to show in the future.

After all has been said, the fact remains that we play to win and we show to win, and the responsibility for staging huge vegetables rests more with judges than with growers. Let a code of judging rules, say, that of the Royal Horticultural Society, be adopted and strictly enforced by every society instead of leaving it as a matter of personal opinion on the part of judges, and there would soon be less need to talk and write about overgrown vegetables at shows. G. H. H.

[We are very pleased to print these remarks, and hope the judges at our shows will have something to say about this question also. We want the subject thoroughly discussed, and while judges disagree as to what constitutes merit in an exhibit, the exhibitor is placed at an unfair disadvantage. All judges should think alike, and it is with the hope of creating something like an uniform opinion that the Royal Horticultural Society issued the invaluable rules for judging. The opinion of the leading judges of to-day is that over-development is an evil, and this opinion should govern those who award prizes at the hundreds of small country shows where the judges are not men of the greatest experience in this particular duty.—ED.]

NOTES ABOUT FRUIT SHOWS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Few persons will deny that good follows the holding of fruit shows. For instance, the public are thus brought to take an active interest, that often becomes profitable, in an important national industry. There is no doubt that fruit shows incite many to plant fruit trees that otherwise would not do so, and yet they are certainly the wrong places for the inexperienced intending planter to go to with the intention of making a selection of varieties. When he does this he, naturally enough, is captivated by the beautiful appearance of some of the inferior fruits, and this is especially the case with Apples, Pears, and Grapes. He takes their names, orders and plants them, and later finds that the handsome fruits that aroused his enthusiasm have deceived him. The better way for the would-be fruit grower to act in this matter is to consult a reliable nurseryman (not his catalogue), to explain the purpose for which fruit is wanted, and leave the selection of varieties in his hands.

The selection of varieties of a good number of kinds of fruit trees is, perhaps, the most difficult, and also one of the most important, items connected with forming a fruit plantation; and I wonder how many of us who ought to know something of this matter have planted trees of this description at all extensively, and ultimately been perfectly satisfied with the results of our endeavours. Perhaps one of the best things that a fruit show does is to encourage the planting of trees and the taking of an interest in their culture by cottagers. The schedule of the Herefordshire Fruit and Chrysanthemum Society, for instance, provides six classes for Apples for *bond fide* cottagers, one of which is for a collection of six varieties, while another is for the best packed for market, box, barrel, or hamper of this fruit, and it is surprising to see, even in this favourable Apple-growing district, the quantity of fruit and excellent quality of choice varieties that are staged in these classes. As an example of the zeal of some of those belonging to this class of exhibitor, it may be mentioned that when the Apple Charles Ross was first distributed one of them asked if I could oblige him with buds of it, and remarked that he raised his young trees either by budding or grafting, and was desirous of securing any really good sort, as he understood Charles Ross to be.

Whatever advantages, however, shows may have, they cannot be carried on without means, and, in order to command this, they must in an ordinary way be made to attract many visitors. Now a very great many people know comparatively little about an Apple or other fruit, and care as little, further than how it tastes, either in a raw or cooked state; and a series of tables burdened with them formally arranged on plates in the ordinary manner is, instead of being, as to some, interesting and instructive to them, a monotonous spectacle, requiring something to be added to make it attractive. Without recourse to musical entertainments, and things of the kind, which the officials of some shows cannot for obvious reasons indulge in, much might be, and is in some instances done, to make shows, particularly fruit shows, more alluring. Floral and plant decorations in conjunction with the fruit might be encouraged more than they are, and in a way without incurring very heavy

expense. Shrewsbury has given a prominent lead in this respect, and it is pleasing to see Hereford making efforts in a similar direction.

T. COOMER.

The Hendre Gardens, Monmouth.

SOUTH AFRICAN PLANTS IN ENGLISH GARDENS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The projected African garden at Headington Hill House, Oxfordshire, alluded to in THE GARDEN of the 7th ult. (page xiv.) is a departure in a new direction, and any account of its successful carrying out in the future will be followed with interest by many readers of THE GARDEN. South African plants include so large a number of decorative species that if more of them could be induced to thrive and to be sufficiently vigorous to flower well out of doors in our uncertain English climate it would be a great boon. Letters from Cape Colony, dated October 17, received November 11, speak of a return of winter there, after a spell of extremely hot and dry weather—heavy, though joyfully-welcomed rains, which had not ceased after twenty-four hours steady downpour, while the mountain ranges surrounding the Worcester Valley were covered with snow, not only on their summits, but on their lower slopes. Sharp night frosts had also occurred, quite unusual for the time of year, and hard enough to cut the vines in the district, though fortunately without risk of permanent damage to the season's crops. This proves, however, that climatic variations of an unexpected character are not confined to our own shores, and gives hope of some success in acclimatising more of the South African flora from the cooler districts than we have as yet attempted to do.

A box reached me by a recent mail from Het River, containing corms and tubers of about a dozen distinct species of native plants from the Veldt. Among them were bulbs, and a bunch of cut spikes as well, of an exceedingly pretty *Ornithogalum*, which I cannot name with certainty, but which may turn out to be *O. lacteum*. It was astonishing, after close packing for nearly three weeks, to find the upper part of the spikes in fairly good condition, quite enough so to show their decorative character and to be worth putting into water, where in a short time they revived in a wonderful manner. The stems average from 12 inches to 15 inches in height, bearing a loose raceme of pure white and somewhat incurved flowers with pale butter-coloured, not black, centres, as in *O. arabicum* and *O. thyrsoides*. Each flower has a slender white pedicel, an inch or so in length, which adds much to the beauty of the spike. The bulbs are small, and apparently send up no more than one flowering stem. In their native habitat on the Veldt I am told that these *Ornithogalum*s, in company with *Gladioli*, *Lachenalias*, *Irids*, &c., grow in almost pure sand, flowering in September and October—the season equivalent to our March and April. After flowering and dying down the bulbs are well baked in the dry, hot soil during their resting time, but they get a good soaking from winter rains before they start afresh. It strikes me that in pot culture we are apt, sometimes, to forget this point and to wait until we see signs of movement before giving much assistance in the way of water, and by this oversight may very probably cripple the important root-growth which should be going forward before any leaves begin to push. At any rate I am conscious of having made this mistake before now in my own treatment of such bulbs.

Half-hardy *Ornithogalum*s are not very easy to manage. They will often flower well the first season after importation, but fail to do so ever after, even when the bulbs remain fresh and sound. As pot plants, the treatment which suits *Nerines*—absolute dryness at the root, and roasting, under glass if practicable, to ripen the resting bulbs—would most likely induce these fine plants to bloom year by year. The length of time during which their flowers will keep fresh, in common with those of some other genera of the South African *Liliaceae*, notably *Lachenalias*, gives them additional value, and if the shyness of blooming could be overcome

by more successful treatment, our cold greenhouses, and possibly our garden borders as well, might be considerably enriched.

Bulbs received at the present season, which have only lately gone to rest, have unfortunately cold winter months before them instead of summer heat and dryness. The only thing to be done is to pot them at once in very sandy soil, and to keep them in the warmest and driest position at hand for the next two or three months. In my own case a warm greenhouse shelf—warm because it happens to have a kitchen range on the other side of the wall—offers a fairly suitable place, and the whole batch of African bulbs has been consigned for the present to these comfortable quarters. No frost, when it comes, can touch them, and the soil in the pots will remain at an equable temperature, and slightly warm; and they will be watched and cared for with great interest. Amongst them presumably are *Gladioli*, *Nerines*, *Oxalis*, *Lachenalias*, and one or two terrestrial *Orchids*, whose plump little tubers look especially promising.

Ornithogalum, it seems, have the same tendency as *Lachenalias* to produce leaf bulbs, a proneness of which most growers of *Lachenalias* must be aware. The experiment may be tried by cutting a slit across the mid-rib of a growing leaf and bending back the severed part. In due time granulation takes place, and minute bulbs are produced, which finally grow into perfect plants. I have often done this with success in the case of rare *Lachenalias*, but was not aware of the same habit in *Ornithogalum* before finding a reference to it in Kerner's "Natural History of Plants," and others may be glad of the hint. Some injury to the leaf tissue is invariably the exciting cause of the production of such viviparous bulbils. The Cape bulbs which have come to hand show no signs of offsets, but probably the best species of *Ornithogalum* might be readily increased, if desired, by the method adopted by the Dutch *Hyacinth* growers, who score or scoop out the bulbs to make them throw out bulbils.

The English garden best known to me that is the most perfectly adapted for the successful cultivation of South African plants is the famous one at Treco Abbey in the Isles of Scilly. There specimens of all kinds of vegetation indigenous to the warmer temperate regions, from *Eucalyptus*, *Cordylines*, and gigantic *Aloes* and *Furcraeas* to the low-growing but brilliant *Mesembryanthemums* flourish amazingly. Pulverised granite for soil and prevailing sunshine combine, with carefully-planned wind-breaks, to make these gardens a paradise for lovers of rare succulent and liliaceous plants. A score of South African plants come readily to mind. Bushes of scented *Pelargoniums* live comfortably through the winter. The handsome orange-flowered *Lion's Tail* (*Leonotis leonurus*) is one of the few things that have the privilege of a wall, and this it drapes with great effect. *Aloes* of various kinds send up their scarlet and yellow spikes. Out of many more, I can recall three in abundant flower—*A. frutescens*, *A. spicata*, and *A. ciliata*, a trio which lovers of these plants may have set down as shy bloomers, forgetting that the ripening influences of sun and air are essential for the production of flowers. *Kaloeanthus*, which stand out all the year, are the glory of late summer days, and once seen can never be forgotten. An exceptional winter has been known to cut them to the ground level, but they spring again from the root. *Belladonna Lilies*, *Nerines*, *Lilias*, and the like luxuriate in the granite detritus. African "Pig Lilies," as *Callas* are irreverently nick-named by colonists, are quite at home, and grow by thousands on the swampy verge of a fresh water lake. Many-hued *Mesembryanthemums* clothe the rocks and carpet the ground.

Space would fail to tell of them all. But there are parts of the mainland where many of these plants will do well. *Mesembryanthemums* given to friends, for example, have succeeded admirably in Cornwall and at Bournemouth and elsewhere on the South Coast. I hope myself to establish some of the hardier species, which are also, fortunately, amongst the most ornamental, on a warm wall in Sussex, but the wet summer has induced too soft a

growth to give much promise of success to the experiment in the coming winter.

If Mr. Singleton, in Oxfordshire, is able to carry out the design of an African garden, it will be a great incentive to others to follow in his footsteps, especially to those who live in favourable localities near the sea, where severe frosts are less to be feared. We cannot command sunshine, but all experience points to a sharp, gritty soil, shelter from cutting winds—and in many cases deep planting might be added—as essential factors in the successful culture of South African plants in English gardens. K. L. D.

NATIONAL GARDENERS' GUILD.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I venture to suggest the advisability of uniting any such guild or association which may be projected with the existing Kew Gardeners' Guild. Thus a good foundation would be gained, and the Kew Guild, now to a great extent merely a social function, could be extended in practical usefulness.



THE NEW GRAPE MELTON CONSTABLE SEEDLING.

The individuality of the Kew Guild would necessarily be swamped, but I am sure that any regret of the members or their hon. sec.—whose pet enterprise the guild is—would be amply counterbalanced by the knowledge that the horticultural profession was being benefited to an extent impossible of achievement by the Kew Guild. Our Editor says that "unity is strength"; but if the new guild is not amalgamated with the Kew Guild we will have "the house divided against itself," for the annual dinner of the Kew Guild is held during Temple Show week, and many eminent gardeners who would be valuable to the new guild will be present at this dinner, and thus weaken, and may even cripple, the new project.

I make this proposition thinking that the Kew Guild has been forgotten by Mr. Dean when he suggests a meeting during Temple Show week, and I am convinced that the point is worthy of the committee's consideration. KEWITE.

[We print the above letter as the opinion expressed may be held by others, but we must point out that the Kew Guild is, in a sense, a private association of men who have worked together in the Royal Gardens, and have nothing to do with gardens in general.—ED.]

THE FRUIT GARDEN.

A NEW BLACK GRAPE.

LATELY a good deal has been heard of Messrs. Ambrose's new Grape—Melton Constable Seedling—of which we give an illustration. It was raised by Mr. W. Shingler, gardener to Lord Hastings, Melton Constable, and is the result of a cross between *Gros Colmar* and *Lady Hastings*. This Grape is of good flavour, and the berries are large and handsome. That it travels well and keeps well is evidenced by the bunches shown at metropolitan and provincial shows by Messrs. Ambrose, some of them having been at five or six different exhibitions. This new Grape is a late variety, and is said not to be at its best until Christmas or even after. Messrs. Ambrose and Son, The Nurseries, Cheshunt, Herts, have the entire stock of Grape Melton Constable Seedling.

PRUNING FRUIT TREES.

HARD PRUNING v. EXTENSION TRAINING.

Now is the season in which the hardy fruit grower's thoughts are turned towards pruning, and it also seems a fitting time for a renewal of discussion as to the merits of hard pruning *versus* extension training. For some years the matter has been little discussed, and growers for a fruit supply outdoors appear generally to have accepted the extensionists' theories, and to have profited by so doing. An article, however, written by Mr. Owen Thomas, and published in *THE GARDEN* for August 22 this year, shows that hard pruning in the bad old way may still be advocated, not only for the purpose of carrying the trees into unnatural shapes, but also to force them to produce fruit buds, a thing that hard pruning of the subjects dealt with never did, and never will do. I may say at the outset that I long ago adopted the extension principle of pruning and training for almost all outdoor fruit trees that had been planted in positions where extension has been practicable, and have proved, to my own satisfaction at least, over and over again that the development of fruit buds and fruit spurs is hindered, instead of being helped by shortening the leading growths of trees that are in a healthy and flourishing condition. Mr. Thomas uses as an illustration of his theory a set of trees "which were innocent of fruit buds or growth of any kind, the result of neglecting to adopt this (shortening back) practice." I claim that the state of the trees did not show this, and that their condition was due to some cultural neglect either in planting or in after management as regards the proper thinning of the branches or neglect of root-pruning. The advice given to shorten the leading growths to "two-thirds of their length" in August, and a still further shortening at the winter pruning to from 6 inches to 9 inches in length, instils a suicidal policy, the carrying out of which will keep the trees barren or only partially cropped for many years after they ought to be carrying full crops; indeed, it is the rule for such hard pruned trees to be old, as fruit trees go nowadays, before they get into anything like decent size and bearing condition. The hard pruning also conduces to the multiplication of many surplus branches, or embryo branches, which, if not cut out annually, will ultimately choke the trees with growth and produce the barren centres of which complaint is made. The mischief, which might be done by giving such advice, is well shown in your issue for September 12, in which a correspondent, "D. K.," professes, on the strength of this advice, to have immediately put it into

practice on a set of Apples on the Paradise stock eight years planted, and which had always borne well without pruning, except during their first year, this pruning being probably necessary to get a well-placed set of branchlets from which to select in forming the trees. The question is such an important one that one need hardly apologise for making a further attempt to get the views of competent growers before adopting, what will be to many, a retrograde practice.

Let us, as an argument in favour of extension training, take the case of a young tree, two or three years planted, either of Apple, Plum, Cherry, Pear, or, one might say, any hardy fruit tree worked on a proper stock, and well planted under conditions that ensure ripening of the annual growth quite to the tips, as should be the case with all fruit trees. Any shortening back of the main leads of such a tree, and more especially a severe shortening, such as has been recommended, will lead to the production of further strong and spurless growths. Let the annual leading shoots, however, remain intact, confining the pruning to cutting clean out any useless or badly-placed shoots that would be mischievous in the future, and the result in the second year after abstention from shortening will be the production of fruit spurs or buds almost throughout the entire length of the leading shoots, the only bare part of which, and this but for a year or two, being that very portion which the hard pruner would only leave, and which the tree in its struggle to live and to grow provides with both embryo wood and embryo fruit buds. The first of these is compelled, by the artificial treatment employed, to take the lead again and again year after year, suppressing for an indefinite, but always lengthy, period—say, until the tree is reaching middle age—all chance for the latter to be perfected. Nature asserts that the tree shall extend its branches, and eventually become a fruit bearer, to which end freedom of development, in the early years of its life, under good conditions, must inevitably conduce, though for a year or two it may appear to the novice that the willow-like shoots made in forming the tree have but little in common with fruit-bearing wood.

Dwarfness and early production of fruit may only be legitimately obtained by the use of dwarfing stocks suitable to the trees, though where these are not employed occasional root-pruning is of great service when it is found that leading growths do not ripen well and are coarse. The result of dwarfing stocks and of root-pruning is to check grossness, that of branch-pruning is to induce it.

My case shortly is this—that the knife applied to the main leads never yet assisted in the production of fruit buds on a tree that has not reached its prime. It is occasionally useful in the rejuvenation of old trees in which the spurs have become too numerous and worn out. Cut for shape if it pleases you, but give up the idea that this cutting assists in the production of fruit spurs. J. C. TALLACK.

A PEACH TREE BORDER.

SEASONABLE and most important work in the fruit houses at the present moment is the formation and renovation of the borders in which Peach trees are growing, and the following notes with reference to the construction of a Peach border may therefore be of help. To make a completely fresh border begin by digging out all the soil inside the house to the depth of 2 feet 9 inches, and similarly treat the outside border. Each border should be 9 feet wide, measuring from the front wall of the house. Any clayey soil or that which is poor must be removed, but any of good quality may be retained,

and can be used again when mixed with new soil in the formation of the border. Assuming the soil to have been cleared away to the depth mentioned, the next question to consider is that of drainage. First lay the main drain (if one does not already exist) at the base of the border. It should empty itself at some convenient point of lower level. If the sub-soil should prove to consist of stiff clay or marl, it will be necessary to concrete the bottom to prevent the roots from penetrating this undesirable medium. The border must then be 3 feet deep. If, on the contrary, the substratum should be of sandstone or chalk, no concrete is necessary; if it is found to consist of a good bed of gravel or sand no other drainage will be necessary, neither would the main drain spoken of be required. Artificial drainage, however, must be provided in most cases, and the best way to secure this (after the main drain has been laid down) is by laying 4-inch pipes at the bottom of the border, 4 feet apart, obliquely towards the lower end of the main drain, and emptying into it. The bottom of the border should be so formed that there is a fall of at least 6 inches towards the main drain.

The pipes should be covered with a layer of broken bricks, stones, or such rough material as is at hand, and will carry water away rapidly. I have no hesitation in condemning the making of large, rich borders for the planting of young fruit trees of any kind. Under this system I know they will make remarkable growth for the first year or two, but this is at the sacrifice of permanent success. The border I recommend should be first made 5 feet wide—3 feet wide inside, and 2 feet outside. The front wall must be arched to allow of the roots spreading both inside and out. In commencing to form the border place turves grass-side downwards over the drainage, and build turf walls at the limits of the 5 feet wide border. They should be parallel to the wall of the house and 2½ feet high.

The border should be formed of fairly heavy loam cut from old pasture land. This should be stacked long enough to destroy the grass roots and no longer; a couple of months will suffice. When preparing the turf for the border it should be chopped into pieces about 5 inches square, and to each cartload of loam add a barrowload of road scrapings, and the same quantity of old mortar rubble, broken bricks, and a bag of quarter-inch bones. I may here draw attention to a matter which has an important bearing on the successful cultivation of the Peach tree, and, indeed, I may say, on all stone fruits, that is, the necessity of the soil in which they are grown having a liberal mixture of lime in its composition. This compost should be turned over several times, and when well mixed placed loosely in the border between the two turf walls. The soil must not be prepared when wet, nor should it be very dry; it must be moistened if necessary to make it friable.

A. P. H.

BOOKS.

Flora of Derbyshire.*—That an excellent beginning has been made towards a complete Flora of Derbyshire is evident from this carefully-compiled work by the Vicar of Shirley. The author says that "it cannot be regarded as much more than a stage forward towards a complete account of the botany of the county." The Fungi, Lichens, and Algae are omitted through lack of time and workers to investigate them, but the ten years which have elapsed since the work was begun have been fruitful in good results, and Mr. Linton is happy in having zealous workers to co-operate in his interesting task. To quote from the preface: "The nomenclature and order of arrangement adopted for the Phanerogams follow, for the most part, those of the ninth edition of the London catalogue, except that the *Coniferae* are placed after the *Grasses*; for the *Mosses* the Handbook of Messrs. Dixon and Jameson has been employed,

* "Flora of Derbyshire." By the Rev. William Richardson Linton, Vicar of Shirley, Derbyshire. London: Bemoose and Sons, Limited, 4, Snow Hill, E.C. Price 12s. 6d. net.

except that the *Spagna* are arranged on the Warmingstonian system as interpreted by Mr. Horrell, and the *Harpidoid Hypna*, according to Mr. Wheldon's article on them in the *Naturalist* for March, 1902, whilst for the *Hepaticae* the excellent Monograph of Mr. Pearson has been followed. The *Characeae* are placed last, as being most nearly allied to the *Algae*." The author gives a long list of those who have helped him in his labours, and will be grateful for further notes bearing on the Flora of the county. Two useful maps are given, and there is a capital index.

THE KITCHEN GARDEN.

GOURDS.

A RECENT collection of these products at the Drill Hall rather served to show how great is the variety found in the family than displayed decorative effect. When the prettier forms are grown freely on poles or over arches, or festooned on cords or chains so that the fruits hang down clear of the leafage, there is in them some element of beauty and of decorative effect. When gathered and disposed loosely or in heaps or mounds on a table there is very little of beauty evidenced. But the primary object for which we grow Gourds is for edible purposes. Melons, Vegetable Marrows, and Cucumbers are all valuable edible fruits. Gourds generally are not so, even the big Pumpkin rather astonishing by its capacity to become an elephant than to satisfy the human palate. But with all our efforts in the direction of improving Gourds, even the best of them of the edible section are far from being useful food articles.

Mr. G. Wythes has done something in this direction, as he has so recently told readers of THE GARDEN, but he will readily admit that it is but little yet. Still, from a first effort to create from out of the Gourd family any material improvement on the common watery Marrow not much can be expected, and if, as one of the results of such effort, seedless fruits are produced, we shall not get very far in any case. When such results follow the intercrossing of distinct varieties, it is then obvious that there must be a new start made with other varieties that are fecund, as we have no other way to increase stock but by seed. One of the most desirable of all the family in an edible sense when cooked is the large-fruited, egg-shaped Ohio Squash. The plants grow grossly, and the fruits being rather large are not plentifully produced, but when obtained they have rich flavor and a dry Marrow texture, very diverse from that found in ordinary Vegetable Marrows.

It might be worth while using as parents this Squash and a white or green long Marrow for a start, and, if any of the progeny gave promise of improvement and of seed, then to intercross the best with such an excellent variety as Penzance. The chief aim should be to secure a variety that is very fruitful, has fruits of quite medium size, thick of flesh, and that of a very pleasant Marrow-like texture. Whilst it is greatly to be desired that Mr. Wythes should continue his efforts to create something better in edible Marrow than we now have, there is no reason why others should not do the same, but with diverse varieties. One of the most useful Marrows I have yet seen was in considerable quantity at Wisley. The variety was remarkably productive, fruits of medium size, 8 inches to 9 inches long, white-skinned, with bright yellow near the stems. I trust we may see that excellent variety growing in the Wisley garden next year. A. D.

BROCCOLI MICHAELMAS WHITE IN AUTUMN.

Few vegetables are more useful than the Broccoli. Though there is a full supply of green things at this season, such as Kales, Sprouts, and Savoy, these are not so suitable for invalids and children as a small Cauliflower or Broccoli. Another point, and one that the private grower should not overlook, is that the more variety there is the better,

and it well repays those who like good vegetables to get the best quality as long as possible. May and June are good months to sow for the supply, but this date refers to the south. I would advise a month earlier in the northern parts of the country, but too early sowing I do not think advantageous, as large heads are not so useful. To succeed the earlier or autumn Cauliflowers the Michaelmas White is excellent, and even when cut it remains firm for some time. The heads are pure white and mature very quickly. G. WYTHES.

NURSERY GARDENS.

MR. W. J. GODFREY'S EXMOUTH NURSERIES.

THE favour that has been awarded to the Chrysanthemum by English growers of late years must be particularly agreeable to the Japanese both as a nation and individually. If a Japanese were landed for the first time in this country and taken direct into the Chrysanthemum house of an up-to-date cultivator at this time of year he would either be agreeably flattered that his national flower should receive so much attention in a foreign country, or particularly jealous of the advances made by cultivation. To an ordinary Englishman the sight of several thousands of plants in full flower of all the latest varieties, for which Mr. Godfrey of Exmouth is noted, is a striking object. Thoughts of this kind passed through the mind of the writer during a visit made to Mr. Godfrey's nurseries on Saturday last, a period somewhat late, even in the Chrysanthemum season; but, notwithstanding, there was a fine show, and the deterioration of some flowers was scarcely apparent amid the excellence of others.

The growing of Chrysanthemums at the Exmouth nurseries of Mr. Godfrey might, perhaps, be better described as Chrysanthemum farming, for not only in the large conservatory, where the plants are numbered by thousands, and where the eye travelled over an extensive area of many colours and tints well known to Chrysanthemum lovers and experts, but also in other houses as well as in the open and also in frames containing cuttings without number, the genus Chrysanthemum was everywhere in evidence.

It is perhaps a little superfluous even to enumerate some of the more striking varieties raised and cultivated in the Exmouth Nurseries, inasmuch as they have been already reported upon as prize-taking exhibits at Birmingham, the Crystal Palace, and other shows, but among those that were in good condition at the late period of our visit may be mentioned the following: Godfrey's Pride, Sensation, F. S. Vallis, Mrs. Vallis, Bessie Godfrey, Mrs. Nagelmacker, Exmouth Rival, Mrs. D. V. West, Duke of Devonshire, Glory of Devon, and others.

We have referred to the enormous number of plants under cultivation in Mr. Godfrey's nurseries, and in proof of this we may perhaps give the following figures: About 700 of the best blooms were cut for the Royal Horticultural Society's show; over 6,000 plants are grown for supplying cut blooms for exhibition alone, and several thousands for decorative purposes. To keep this stock up for another year, or, perhaps, even to exceed it, the cuttings before mentioned in cold frames amount to about 10,000.

Though the Chrysanthemum is perhaps the principal speciality of Mr. Godfrey, that he and his staff find time for other cultures was shown from the fact that the great conservatory now occupied by his favourite flower is, during the Tomato season, entirely filled with this useful fruit, the demand for which is ever increasing, some thousands of pounds being produced here and disposed of locally.

Another culture which receives special attention at the Exmouth Nurseries is that of the Carnation, plants in all stages of perfection being seen in different parts of the nurseries, those now flowering being contained in a house some 150 feet long and about 20 feet wide. I was informed that these plants yielded some twenty to thirty dozen

blooms daily for local sale as cut flowers, and that this was continued from the end of September to February. Though so abundantly grown, great care is paid to the culture of the best varieties, and the size and form of a flower is carefully studied.

The Poppies are another class of flower to which especial attention is given at Exmouth. Some of the fine strains of Oriental Poppy have already become well known, and one of the most attractive is that of a shade between terra-cotta and pink, a tint almost indescribable and a texture closely resembling fine silk. Though Pelargoniums may be said to be out of season at this time, of year a very large stock was shown to me, making fine masses of colour. The most beautiful of all was, however, Duchess of Cornwall, the flowers of which are very large, and are borne in large trusses of an extremely delicate tint difficult to describe, but of a somewhat pale salmon, flushed with rose-pink.

While the foregoing are the principal flowering plants under cultivation at the present time we noticed also a fine belt of ornamental flowering shrubs, which, being judiciously intermixed and the plants themselves of good shape and size and clean in appearance, formed a good boundary on one side of the Claremont Nursery, which is the principal one belonging to Mr. Godfrey, and where the bulk of the glass houses are situated.

All the nurseries are in most open and healthy positions, conditions of great advantage to the outdoor growth of many plants that flourish in the open in this favoured part of England; and the front gardens of a large proportion of the houses of all classes in the neighbourhood show that the climatic conditions as well as the nature of the soil are taken advantage of, and it is, besides, not a little remarkable that at this time of year Chrysanthemums of all the outdoor growing varieties are most abundant in nearly every front garden, a fact that may have originated from the influence of the Exmouth Nurseries.

NOTES FROM THE MARKETS.

BEGONIA GLOIRE DE LORRAINE.—A long time elapsed before this was recognised as a useful market plant; but several growers have been sending it to Covent Garden Market this season. The demand was not very encouraging earlier in the season, and prices went down to a low ebb; but this could hardly be taken as a fair estimate, for the trade for all pot plants has been as bad as it possibly could be. This pretty Begonia is hardly a wet weather plant. The Turnford Hall variety has also been coming in very good, and Mr. Langé's variety alba; but these two are so much alike that it would be difficult to sort them out. These have not yet come down quite to the same price as Gloire de Lorraine, but they may be had at a price that should suit anyone having a use for them.

Heaths.—Very large quantities are now on the market. *Erica hyemalis* is remarkably well flowered, and, considering the wet, sunless season, this is rather remarkable. *Gracilis* is also good and well coloured; it is now getting rather late for this, but it is still coming in, and is quite fresh and well coloured. Of this the supply is chiefly in $4\frac{1}{2}$ -inch and 6-inch pots; but of *hyemalis*, though the largest trade is for $4\frac{1}{2}$ -inch and 6-inch pots, some fine plants in 8-inch pots are coming in. At one time there would have been little trade for these, but large plants are more in demand than formerly. The supply in the market far exceeds the demand just now. Last Saturday a good many were left over at closing time, and one grower told me that, if priced at the lowest, buyers could not be found for them; but as they are so much used at Christmas trade ought to improve.

Ferns.—Never were Ferns more abundant than at the present time, and since they have come into general use probably growers have rarely experienced such dull trade. On Saturday morning at the close of the market some of the stands presented more the appearance of opening rather than closing time. Good plants of *Adiantum*

cuneatum are perhaps the only thing there is any scarcity of. This in $4\frac{1}{2}$ -inch pots would sell well. The *Nephrolepis*, which have maintained a good price, are coming down, and seem likely to soon reach the level of ordinary *Pteris*. *Asplenium bulbiferum* has come more into favour than formerly, and it is remarkable how few of the older created varieties of *Pteris* are now seen. *P. Wimsetti* is practically the only created variety now much appreciated. *P. cretica* major is now most extensively grown and a general favourite with buyers. A. H.

SOCIETIES.

MELTON MOWBRAY AND DISTRICT.

THE eleventh annual show of Chrysanthemums, fruit, and vegetables was held in the Corn Exchange on the 18th and 19th ult. The society is fortunate in being well supported by subscriptions from the neighbouring gentry, which enable the committee to offer a liberal prize list to its members, as well as to an open class for cut blooms and fruit. No less than eight groups of Chrysanthemums were shown, which, together with several dinner-table decorations arranged down the centre of the hall, added greatly to the general pleasing effect of the exhibition.

OPEN CLASSES—CUT FLOWERS.

Class 1 was for twelve Japanese Chrysanthemums, distinct: Mr. F. J. Clark, gardener to Mark Firth, Esq., Wistow Hall, Leicester, was placed first, staging the following varieties: Mrs. Barklay, Mr. L. Remy, W. E. Church, G. J. Warren, Le Grand Dragon, M.-f.-king Hero, Florence Molyneux, Mrs. Hummel, Mme. P. Radcliffe, Mrs. Mease, Earl of Harrowby, and Sensation; Mr. J. Jones, gardener to Clarence Wilson, Esq., Ashby Folville, Loughborough, was second; his stand contained a fine bloom of Mrs. Mease; Mr. Lilley, gardener to H. T. Barclay, Esq., Gaddesby Hall, Leicester, was third.

Class 2 was for twelve incurved blooms: Here Mr. G. Jamieson, gardener to Lord Percy St. Maur, led the way, his best blooms being Countess of Warwick, Ralph Hatton, Duchess of Fife, C. H. Curtis, and Mme. Ferlat; Mr. F. J. Clark came second, and Mr. Lilley third.

In Class 3 only one exhibit of a collection of fruit was shown, and this by F. Sharp, Esq., Sibley (gardener, Mr. Hubbard), who was awarded first prize.

RESIDENTS WITHIN TEN MILES OF MELTON MOWBRAY.

For a group of Chrysanthemums and foliage plants arranged for effect the first prize was awarded to J. Pacey, Esq. (gardener, Mr. C. Skentit); second, Colonel the Hon. W. A. Lawson (gardener, Mr. A. Stephen); and third, — Greaves, Esq. (gardener, Mr. Matthews). There was but one exhibit of three specimen plants of Chrysanthemums, and first prize was awarded to J. Pacey, Esq.

For twelve incurved blooms, Mr. Jamieson again led the way, Mr. Hubbard being second.

Twelve Japanese blooms, distinct, shown in vases: Mr. F. Simms, gardener to F. St. K. Durlacker, won first prize with nice fresh well-coloured blooms, Vivian Murel and M. Louis Remy being particularly fine; Mr. Lilley was placed second.

A special prize for eighteen Japanese, in three distinct colours, to be shown in vases, brought good competition, Mr. Lilley proving the winner, followed by Mr. Jones. For nine blooms shown in vases, open to amateurs, Mr. J. Holmes was first, Mr. A. Chapman second, and Mr. Whitby third.

A special prize, given by Mr. H. Wood (open), for a decorated dinner-table, was won by Mr. F. J. Clark, Miss J. Smith being second, and Mr. G. Hubbard, gardener to Colonel Powell, third.

Vegetables were shown in good form. A special prize presented by Mrs. Powell for a collection of six varieties was won by Mr. Haseldine; second, Mr. John Fuistone; third, Mr. J. Holmes.

Special prizes by Messrs. Yards and Co.—For six varieties, Mr. Haseldine was again first; second, Mr. Holmes; and third, Mr. J. Erob.

Mr. J. Fuistone won for six best Onions, showing a good type of Ailsa Craig. The duties of secretary were ably carried out by Mr. C. Dickins.

BOLTON.

It was generally conceded that the show held on the 20th and 21st ult. eclipsed all previous efforts, both as to quantity and the efficient manner in which the exhibits were staged. The overflow entries were arranged in the annex and along the upper corridors, and consisted of plants and vegetables, the latter making an imposing display, which was materially increased by the fine exhibit of Mr. B. Ashton, Latham Hall, in the form of a collection of Potatoes. Messrs. W. Wells and Co., Redhill, also contributed a collection of single cut Chrysanthemums.

GROUPS.

A group of miscellaneous plants 12 feet square, for which was offered the silver challenge cup presented by E. T. Crook, Esq., and £7 for first prize: This was won Mr. J. Wainwright, gardener to E. T. Crook, Esq., with a collection artistically arranged, in which *Oncidium varicosum*, *Colias*, and *Crotons* were interspersed among *Falms*, *Crataegus*, &c.; Mr. Henry Shone, gardener to J. W. Makant, Esq., also staged well.

A group of Chrysanthemums and foliage plants, 12 feet in diameter: The silver challenge cup presented by J. H. Hargrave, Esq., went with the first prize to Mr. W. Burgess

gardener to J. Harwood, Esq., for a well-arranged group of moderate flowers; Mr. John Horrocks, gardener to Mrs. Tillotson, was second.

For the mirror groups Mr. J. Abbot, gardener to J. Musgrave, Esq., secured the leading award; Mr. J. Barclay, gardener to T. Walker, Esq., followed.

CUT FLOWERS.

Twelve incurved and twelve Japanese distinct (included with the first prize the silver challenge cup presented by the late Joseph Edge, Esq.): First, Mr. J. Davies, gardener to E. Ellis, Esq., Liverpool, who had very good flowers; Mr. G. Holt, gardener to the Dowager Lady Ashburton, Romsey, was second.

Twenty-four Japanese: E. Ellis, Esq., was again to the fore with a good box of blooms, including fine Beale Godfrey and Godfrey's Pride.

Six vases of three blooms of each: First, Mr. H. Boyd, gardener to Captain Fielden, with an attractive lot.

Six vases of single blooms: Mr. Thomas Eastwood, gardener to W. Firth, Esq., Lyme, was first with a pretty set.

PLANTS.

Irimulas were in strong force. Mr. W. Burgess secured the lead for these, both for the whites and coloured types.

Six large-flowering Chrysanthemums (given with first prize was another silver challenge cup presented by W. Grierson, Esq.): First, Mr. J. Abbot, with good plants.

Four large-flowering Chrysanthemums: First, Mr. J. Corbett, gardener to E. Knowles, Esq.

Four singles: Mr. J. Abbot led; for one Japanese Mrs. Ainsworth was first; and for one Pompon and one single Mr. J. Abbot was first.

VEGETABLES.

For a collection of eight kinds Mr. G. Corbett was to the fore with a fine lot, in which good Tomatoes, Brussels Sprouts, Carrots, &c., were included.

In the local classes there was keen competition and very good exhibits, this especially in the plant classes and vegetables.

Mr. R. Smith (chairman of committee), Mr. H. Shone (treasurer), Mr. H. Makin (secretary), and the committee are worthy of high praise for their excellent exhibition.

FRUIT.

There were three classes for Grapes: Mr. C. Waterhouse, Freebury, secured the leading award for two bunches of Black Alicante; Mr. G. Hammond, gardener to Colonel R. Ireland Blackbourne, Hale, Liverpool, won for any other black with large bunches of Madresfield Court, and for two whites with Muscat of Alexandria well coloured.

BRISTOL CHRYSANTHEMUM SOCIETY.

THIS society held its annual show in Colston Hall on the 18th and 19th ult., and, favoured with fine weather, a grand display of exhibits, and a large gathering of visitors, together with an ardent body of officials, it may be concluded that everything connected with it passed off successfully.

CHRYSANTHEMUMS.

Twenty-four incurved blooms.—Mr. Drake, Cathays, Cardiff, was the most successful in this class, with excellent blooms, followed by Mr. J. Runnacles.

Twelve incurved.—There were eight good stands in this class, Mr. Baker, gardener to Dr. Copper, taking the lead with an even, fresh set of blooms. A close second was Mr. E. A. Parsons.

In a class for twelve Anemone varieties, which are not often staged now, the premier place was secured by Mr. Mack, gardener to Mr. Pethick, with beautiful blooms of Mrs. Gardener, La Chalonais, Owen's Perfection, W. Astor, Delamere, Mr. P. Dunn, &c. The second was taken by Mr. Hobbs.

Thirty-six Japanese.—For these a prize of £5 and the society's challenge vase, valued twelve guineas, the latter to be won three times before becoming the property of the exhibitor. This was achieved on this occasion by Mr. Vallis of Chippenham, and he finally secures the vase. He well deserved the coveted award, for, as on previous occasions, he quite outdistanced his rivals with magnificent blooms of F. S. Vallis, for which he gained the National Chrysanthemum Society's silver medal for the best bloom exhibited. Mr. May, gardener to H. O. Lord, Esq., took the second place, closely followed by the Frome Fruit and Flower Company. There were five exhibitors in this class.

Twelve Japanese.—Here Mr. Baker again led, this time amongst six exhibitors, with a fine stand of heavy blooms. Mr. Rakes, gardener to W. A. F. Powell, Esq., was a good second; and Mr. Cooper, gardener to W. Macadam Smith, Esq., third.

VASES OF BLOOMS.

These classes were particularly effective, and there was close competition amongst them. For six vases, distinct varieties, five blooms of each, the lead was taken, amongst six exhibitors, by Mr. May with a grand set. Mr. McCulloch and Mr. Cooper came second and third in the order named.

For two vases of Japanese, any yellow variety, three blooms of each, Mr. Rakes took the lead amongst seven exhibitors, and staged beautifully fresh blooms upon stout stems of Beale Godfrey; second, Mr. Runnacles, with J. E. Upton; third, Mr. Cooper, with Kimberley. Mr. Rakes was again first in a similar class for any white variety, and staged grand blooms of Mme. Carnot. Mr. May coming second with the same variety, and Mr. West third with Nellie Pockett.

GROUPS.

Chrysanthemums, relieved with ornamental foliage plants and Ferns, in a space of 50 square feet.—Mr. Bannister, gardener to Mr. St. Vincent Ames, here was deservedly placed first among three exhibitors, and arranged a very effective and splendidly-grown lot of plants, which attracted much notice. Mr. H. T. Curtis, gardener to W. H. Davis, Esq., was placed second.

Groups of 50 square feet.—Here three groups were again arranged. The one that took leading place for Mr. J.

McCulloch, gardener to J. Colthurst, Esq., was in every way excellent. The second position was taken by Mr. Harford, gardener to V. Barnood, Esq., and the third by Mr. J. Parrett, gardener to W. H. Butler, Esq.

Miscellaneous plants in 80 square feet.—This was in every respect an excellent class, five groups being arranged. The leading one by Mr. Curtis was especially choice, and contained many valuable plants of Cattleyas, Dendrobiums, chiefly Phalenopsis, Cypridipediums, &c. Mr. McCulloch, who followed very closely, staged similar plants, and Dr. Egar was a good third.

Orchids were shown in choice variety and in considerable quantities, Mr. Budget being awarded the Royal Horticultural Society's silver medal for a fine collection of Cypridipediums, chiefly composed of the insigne type, and Mr. Pomper, gardener to Dr. Smith, gained a similar medal for the best Orchid shown, with a finely-flowered specimen of Sophronitis grandiflora.

For six plants five lots were staged, Mr. Pomper leading with well-grown and blossomed plants of Cattleya bowringiana, Odontoglossum crispum, Oncidium ornithorrhynchum, O. Forbesii, Cypridipedium Morganianum, and C. arthurianum. Colonel C. Batten was placed first for three Orchids of any kind and also for three Cypridipediums.

The classes for table decorations, bouquets, wreaths, sprays, &c., were particularly well filled with tastefully arranged exhibits. The successful exhibitors were chiefly the leading florists of Bristol and district, and the several classes devoted to specimen plants of Palms, Ferns, stove plants, Primulas, Cyclamen, and dinner table plants contained many beautiful and well-grown subjects that helped considerably to fill the centre of the hall.

FRUIT.

Six dishes, dessert varieties.—Here Mr. H. Jones was placed first with fairly good Grapes, and Mr. Bannister second with excellent Pears, Apples, &c. This was a very close contest. Mr. Bannister was a good first for six dishes of Pears. The second prize fell to Mr. Hall. For four dishes of Pears Mr. Coote was placed first amongst six opponents with grand fruits, Mr. Bannister being a good second. Mr. Coote again led for a single dish of eight fruits, and staged a grand one of Doyenné du Comice.

Apples.—Mr. Runnacles was a good first for six dishes of culinary Apples, and for six dishes of dessert varieties Mr. Peritt, with clean fruits. For four dishes, dessert varieties, Mr. Coote was placed first amongst five exhibitors. Grapes were largely shown, eight classes being provided for them, Mr. Coote being the leading exhibitor.

TRADE EXHIBITS.

These contributed largely towards making the show a success. The King's Acro Nursery Company, Hereford, staged fifty dishes of fine Apples; Messrs. Garaway and Co., Bristol, Cyclamen, Chrysanthemums, &c.; Messrs. Parker and Sons, Bristol, bouquets, wreaths, and other floral devices, together with Carnations; Messrs. Dobson and Co., Bristol, sent wreaths, bouquets, &c.; Mr. Godfrey, Exmouth, Chrysanthemums, Carnations, &c., including many new varieties; Messrs. Cannell and Sons showed a large and grand lot of blooms of zonal Pelargoniums, splendidly staged; and Messrs. Blackmore and Langdon, Bath, a large collection of Begonia Gloire de Lorraine and its white variety Turnford Hall. Many other good exhibits of a similar character were staged.

NATIONAL CHRYSANTHEMUM SOCIETY.

ON Monday, the 23rd ult., the executive committee of the above society held a meeting at Carr's Restaurant, Strand, W.C., when the chair was taken by Mr. Thomas Bevan. After the minutes had been read and various items of correspondence, principally relating to the society's recent show at the Crystal Palace, the secretary announced that the prize money awarded at that show, together with the value of medals, amounted to upwards of £218, and that in addition various honorary awards were also made.

Enquiry having been made as to the attendance of visitors at the show, it was reported that on the first day especially there was every reason for congratulation at the number of persons who passed through the turnstiles. The chairman then called upon Mr. Harman Payne to report on the visit of the National Chrysanthemum Society's deputation to the Paris and Lille exhibitions. A brief account of the visit was therefore given, particular stress being laid upon the grandeur and extent of the Paris show, and the great improvement in culture that had taken place since the first visit some years ago. Mr. Payne concluded by saying that a formal report would be presented at a subsequent meeting, and would, as on former occasions, be included in the next edition of the society's schedule. As a pleasing memento of the visit he also handed over to the chairman a silver-gilt medal (new design) of the French National Chrysanthemum Society, which was presented to him in the name of the society to commemorate the friendly visit. This medal, which is particularly artistic in execution, is mounted on a crimson velvet stand with inscribed tablet affixed. On the motion of Mr. C. H. Curtis a vote of thanks was passed to the members of the deputation for the time they devoted to the purpose of the visit. Mr. T. Bevan and Mr. Witty replied, pointing out the educational advantages of such visits, and especially commenting on the high quality of the fruit and vegetables staged at the Paris show.

The number and dates of next year's shows were then considered. For the present it was decided to allow the October and December shows to stand over, but the great November festival was fixed for the 2nd, 3rd, and 4th of that month in 1904. It is satisfactory to record that the financial position as revealed by the interim cash account was considered highly gratifying under all the circumstances.

Committee meetings for next season were then taken into consideration. In the event of three shows being held in 1904 there will be a floral committee meeting at each, and in addition three others at the Essex Hall on September 19, October 24, and November 21. The executive committee will hold its meetings on September 19, October 24, November 21, December 12, 1904, and January 16, 1905.

Owing to the death of Mr. A. Newell his place on the schedule revision committee was filled by Mr. C. Bick.

In accordance with the usual custom it was resolved that the members of the floral committee be entertained at dinner at Carr's Restaurant, the date to be fixed hereafter. Mr. Young raised a critical and interesting discussion upon the subject of the supplementary catalogue recently issued. Eighteen new members were elected, and the proceedings terminated after a lengthy agenda.

ANNUAL DINNER.

The annual dinner of this society, which was allowed to lapse last year, was revived on Wednesday evening, the 25th ult., when Mr. Charles E. Shea, F.R.H.S. (president), took the chair at the Holborn Restaurant. There were in attendance 127 members and their friends, and among others present were Messrs. A. Bryant, C. B. Hayward, C. Harman Payne, Thomas Bevan, Schneider, D. B. Crane, J. E. Witty, H. Cannell, H. J. Jones, and E. Dean (secretary).

At the conclusion of the dinner the chairman gave the toast "The King" and "The Queen," which were received with enthusiasm. In giving the toast of the evening, viz., "The National Chrysanthemum Society," the chairman went at considerable length into the history of the society, saying with what pleasure he gave the toast. He spoke of gardeners and practical growers and lovers of the Autumn Queen, and said that this gave members an opportunity of keeping green the memory of those who had created the National Chrysanthemum Society. The progress of the Society, from its inception at Stoke Newington in 1844 till the present time, was given in detail, and those who were closely identified with its work, in which many whose names and memories are still cherished, were given their meed of praise, and gave those who were present an excellent idea of what the fortune of the National Chrysanthemum Society had been. To Mr. Henry Cannell, sen., was given the credit of suggesting the name "National Chrysanthemum Society," and this was in 1884. Reference was also made to the first show held in the Royal Aquarium in 1877, and also to the latest move to the Crystal Palace. Specially gratifying was it to hear the chairman refer to the late Mr. William Holmes, who was elected secretary in 1877, and whose singleness of purpose and courtesy made him a most invaluable officer of the society. His lamented death in 1890 was also referred to. Special reference was made to the homes position of the society in 1902, through the sale of the Royal Aquarium. He said it was a shame that there was no great hall in London where the National Chrysanthemum Society could hold their show. Enormous advance in new varieties is now universal, and he was surprised to find that someone had written that the Chrysanthemum had depraved the public taste. Is size an offence when accompanied by other points of quality? All that is beautiful surely is no offence! Size must not justify coarseness.

The toast was drunk with enthusiasm. Mr. H. Cannell, sen., replied, and said how he remembered the vivid incidents mentioned by the chairman. Referring to a show held in a dark and dismal schoolroom in 1851, he said soot blooms were shown; the exhibition was made up of plants, and they were much admired. The shows at the Royal Aquarium gave the Chrysanthemum a great impetus. He referred to the pleasure he had in attending the recent show at the Crystal Palace, and said he had never missed a single exhibition held there previous to the migration of the National Chrysanthemum Society from the Aquarium. He said there was a great future for the society in the neighbourhood of the Crystal Palace, and he recommended it to make friends of the gardeners and their employers from Dartford to Putney. Specially interesting was his reference to the incurved sorts, which in the early days, he said, growers were so keen on. The members of the Randle family were specially eulogised. At the conclusion of Mr. Cannell's reply the cups and trophies were presented to the successful competitors as follows:—

The National Challenge Trophy to the Epsom and District Chrysanthemum Society; the Holmes Memorial Cup respectively to Mr. W. Higgs for incurved and Mr. W. May for Japanese blooms; the Percy Waterer Challenge Cup for decorative Chrysanthemums, one to Mrs. D. B. Crane and the other to Mr. D. B. Crane, who have now won the cup outright; and to Mr. W. Higgs for vases of incurved blooms the silver tea service given by Messrs. Mackenzie and Maccur, Limited.

In a very interesting and amusing speech Mr. A. Bryant, F.R.H.S., gave the toast "The President, Vice-presidents, Officers, Auditors, and Committees of the Society." He specially eulogised the president, and said there was no man he would sooner go to in a case of difficulty for advice. He also said Mr. Shea prefers to prevent people getting into a difficulty rather than getting them out of one. He was a man of many hobbies, and generally came out on top. Others interested in this toast were also briefly referred to, and the toast was well received. The president replied, giving his experience as a cultivator, and mentioning several most interesting matters. Messrs. T. Bevan and J. E. Witty also responded. Mr. A. Taylor gave the toast "The Donors of Special Prizes," to which the representative of Messrs. Mackenzie and Moncur, Limited, replied.

As the evening advanced it was necessary to give the remaining toasts in quick succession. "The Affiliated Societies," "Chairman," "Visitors," and "The Press" each being received and responded to. A capital programme of music, &c., was provided by the Ariel Quartette and others, the musical arrangements being under the direction of Mr. T. Bennett Griffen. The tables were prettily decorated through the kindness of several friends of the society, who also contributed fruit, &c.

ABERDEEN CHRYSANTHEMUM SHOW.

THIS show was held on the 20th and 21st ult., and was so successful that the exhibits could not all be accommodated in the music hall, and overflowed into the hallways adjoining. It was opened by Mr. C. E. N. Leith-Hay, of Leith Hall, in the presence of a large company, and with a pleasing speech. Mr. Wm. Blisset presided.

In the open plant classes the most important was that for semi-circular group of Chrysanthemums 10 feet by 5 feet, in which, in addition to a sum of money, the Seed and Nursery Trade Challenge Cup was offered. For this there was a good competition, and the trophy eventually fell to Mr. John Proctor, Devanha House, for a very tasteful group of admirably grown plants: Mr. F. Munro, Stoneywood House, being second; Mr. G. Matland, Woodside House, third; and Mr. S. Robertson, Ferryhill House, fourth. Mr. A. Archibald, 9, Queen's Road, was first for six Chrysanthemums, single and Pompons excluded, three blooms to a plant; Mr. F. Munro won for one specimen Chrysanthemum; and Mr. A. Murray, Ashley House, for six in at least four varieties. The Palms and other pot plants were capitally won, the principal winners in these classes being Mr. J. McKay, Howburn; Mr. A. Grigor, Fairfield; Mr. T. Grigor, Lanchory House; Mr. J. Sim; Mr. A. Duncan, Albion Place; and Mr. A. Park.

CUT BLOOMS.
These were excellent throughout, and about 1,000 blooms of all were shown. The large blooms were splendidly cultivated, and exhibited in the best of condition, while many admired those shown in bunches and not disbudded. Only the winners in a few representative classes can be named.

Mr. W. Paterson, Balmiedie, won the President's cup and money prize for twelve vases of Japanese in twelve varieties, three blooms of each, against a strong competitor in the person of Mr. W. M. Muir, Rosehaugh, who came second. Mr. Paterson won the silver cup for twenty-four Japanese in at least twelve varieties; Mr. John Grigor, Banchory House, being second; and Mr. J. Petrie, Craithes Castle, third. The best twelve incurred were from Mr. G. Jamieson, Burton Hall; Mr. W. Paterson being first for the best six of these, and also carrying off the prize for the best incurred in the show. For twelve bunches, not disbudded, Mr. J. Smith, Inverness, was first, and Mr. A. Grigor had the best single.

In the amateurs' classes, in which there was strong competition, the leading prize, the Ladies' Challenge Cup, for eighteen Japanese blooms, was won by Mr. J. Jenkins, Milton Road. The florists' work classes were of exceptional excellence, Messrs. Knowles and Sons and Mr. A. Burns, jun., being the most successful in these classes.

Among the miscellaneous floral items may be mentioned the strong class for Christmas Roses, in which Mr. Wm. McGhie, Springhill, was first. Compared with one exhibit of the kind at Edinburgh the previous day, this was a surprising class.

Fruit could not be called a strong section, but the winners of the first prizes were Mr. G. Stuart, Aden House; Mr. J. Dalgarno, Pitgaverty; Mr. W. M. Muir, who won in three classes; Mr. A. Reid, Durrie; and Mr. A. Park, Lechmelm. Vegetables were very good almost all through, and Mr. J. Dighton, Burtie House, won with his collection. The other classes were too numerous to detail.

Trade firms did not exhibit so largely as they sometimes do here, but the stands of Messrs. Cocker and Sons, Ben Reid and Co., Wm. Smith and Son, and Mr. A. Burns, all of Aberdeen, and those of Messrs. Wm. Thomson and Sons, Limited, Clonferds, and the Ichthemio Guano Company were noticeable.

Obituary.—The Rev. John Stevenson.—Many who are interested in the study of fungi will regret to learn of the death, on the 27th ult., of the Rev. John Stevenson, LL.D., Minister of Glamis, N.B. Dr. Stevenson was for a considerable time secretary of the Scottish Cryptogamic Society, and his work, entitled "Mycologia Scotica," is recognised as one of great value on the subject. He was an ardent lover of Nature in its many aspects, and occasionally gave lectures which reflected his extensive knowledge.

The National Dahlia Society.—An important adjourned meeting of the committee of this society was held by kind permission at the Horticultural Club on Tuesday, the 1st inst., Mr. E. Mawley in the chair, and twelve members present. The chief object of the meeting was to determine the place for the holding of next year's exhibition. Terms and conditions had been obtained from the Royal Horticultural Society as to holding the show in the new Hall, Vincent Square, and from the Crystal Palace Company, in both cases for two days. The conditions of the Royal Horticultural Society's Council, especially in reference to a proposed charge of admission to visitors of 2s. 6d. each, and in requiring that their Fellows be at liberty to show for the National Dahlia Society's prizes, though not subscribers, with the small sum offered as pecuniary grant, were regarded as too onerous; whilst the conditions of the Crystal Palace Company were not onerous and more liberal. It was unanimously agreed to hold next year's show at the Palace. It was agreed to term all guinea subscribers henceforth "Fellows," also to hold the annual meeting of the society on the 15th inst.

National Rose Society's annual meeting.—The twenty-seventh annual general meeting of the National Rose Society will take

place at the rooms of the Horticultural Club, Hotel Windsor, Victoria Street, Westminster, on Thursday, the 10th inst., at 3.30 p.m., to receive the report of the committee, to pass the accounts, to elect the committee and officers for the ensuing year, and for the transaction of other general business. The following alteration of bye-law 5 will be proposed. That the first part of bye-law 5 be altered so as to read: "Notice of any proposed alteration either of these bye-laws or of the regulations for exhibitions must be given in writing to the secretary at least two weeks before a general meeting, and no bye-law or regulation shall be altered except at a general meeting of the society." This addition will be proposed to regulation 1, namely, that regulation 1 be altered so as to read: "That the society shall hold one or more metropolitan shows in each year and provincial shows when practicable. The date of the metropolitan show shall not be earlier than July 6." A meeting of the committee will be held immediately after the annual general meeting to elect the General Purposes Committee for the ensuing year. The annual dinner will take place at the rooms of the Horticultural Club, Hotel Windsor, at 5.30 p.m., Henry V. Machin, Esq., vice-president, in the chair. Members and their friends are earnestly invited to attend this pleasant annual gathering of rosarians. The charge for the dinner (to be paid for at the table) will be 5s., exclusive of wine, &c.—EDWARD MAWLEY, Hon. Secretary.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Growing Holly from cuttings (H. H.).—The Holly will not strike from cuttings or slips. The only way of increasing it being by means of seeds, which take two years to come up, and then make but slow progress during their earlier stages. Your soil should be very suitable for the Holly, which does well in your neighbourhood. If you require immediate results the better way will be to obtain good rooted plants from a local nursery; in fact, this portion of your query is exactly answered on the front page of THE GARDEN for November 28.

Raspberry roots diseased (F. K.).—I am quite at a loss to suggest any cause for the abnormal growths on the Raspberry roots. They are not caused by a fungus. On examining sections under a microscope there are no enlarged cells as there are in roots attacked by the "finger and toe" fungus, which attacks the roots of cruciferous plants, and they are not galls formed by any insect. They appear to be merely hard woody growths. I took the opinion of the scientific committee of the Royal Horticultural Society on them, and no one could tell me anything about them as regards their origin. One member said he had had very similar growths on the roots of a Rose bush, which were much infested by ants, and he thought the hypertrophied growth might be caused by the insects gnawing the roots; but I do not see that that is a satisfactory explanation. For various reasons, however, it would be interesting to know if the Raspberry plant had been infested by ants at its roots.—G. S. S.

Treatment of Boronias (C. E. B.).—Boronias should on no account be watered overhead during the winter months, a well-ventilated (not draughty) greenhouse being necessary to their well-doing at this season. In common with many hard-wooded plants there is a good deal of risk in giving them stimulants of any kind, hence they should be watered solely with rain water. After their flowering season is past—say in April or May—Boronias should be cut back hard, and kept rather close and syringed overhead. This will lead to numerous young shoots being pushed out, and direly these are about half an inch long the plants must be repotted in good fibrous peat and sand. The new soil must be pressed down very firmly; in fact, as firm as the old ball of earth. After this keep them rather close and shaded for a fortnight or so till the roots take possession of the new soil, after which give them ordinary greenhouse treatment.

A rainbow border ("IRIS").—It might be planted thus, beginning with red on the concave side: Scarlet Geranium, dwarf orange African Marigold, Calceolaria amplexicaulis, Matricaria inodora (with the flowers cut off), Salvia patens, and dark Heliotrope (white is inadmissible).

We fear it will not be a very satisfactory piece of gardening. It will not look the least like a rainbow, but will only be like one of the ribbon borders of thirty years ago. The Matricaria should be the ordinary green, not the Golden Feather variety. The wonderful effect of the rainbow is in great part due to the gradation of the tints, the way each pure colour is transfused into the next. It is impossible even to suggest this within the scale of a reasonable flower border. A faint resemblance to a rainbow might be obtained if the thing were done on a gigantic scale on a hillside, to be seen at least a quarter of a mile away. But it would certainly not be worth doing, nor do we think it is worth doing in a garden.

Eucharis amazonica not flowering.—I should like to know if Eucharis amazonica remains many years before flowering. My plants are in good health and seem robust, but I have had them for two years and no flower has appeared. Perhaps the plant was too young when I got it.—L. C. [It is difficult to understand the reason of your plants of Eucharis not flowering, as if in a healthy state they flower as a matter of course. You give no idea of the size of your bulbs; perhaps they were but tiny ones when you first had them, and now with increased size they will soon flower. The Eucharis mite is often answerable for an unhealthy condition of the plant, but as you say yours are in good health they must be free from this pest. We should advise repotting next March, in a compost made up of two-thirds good fibrous loam to one-third well-decayed leaf-mould and a good dash of sand. Place in a light position in the stove where just sheltered from the direct rays of the sun, and while a moderate amount of water at the roots is necessary, an excess should be avoided. During spring and summer syringe two or three times a day.—Ed.]

Chrysanthemums, twenty-four largest and finest Japanese sorts and their culture (YOUNG GARDENER).—We have carefully looked through your collection of forty-five sorts and have selected from them the following twenty-four as being the most likely to meet your requirements. Following the name of each variety we give what we consider to be the best period for sowing or pinching, with the kind of buds that should be retained in each instance:—

Name.	When to pinch or stop.	Which bud to retain.
Bessie Godfrey	Natural break	First crown
Duchess of Sunderland	"	"
Ethel Fitzroy	May, first week	"
General Hutton	Natural break	"
George Lawrence	Middle March	Second crown
Godfrey's Masterpiece	Natural break	First crown
Godfrey's Pride	First week in April	Second crown
Lord Lunlo	"	"
Mme. Paolo Radaelli	Natural break	First crown
Mafeking Hero	Second week in April	Second crown
Miss Elsie Fulton	Natural break	First crown
F. S. Vallis	"	"
M. Louis Remy	First week in April	Second crown
Mrs. Berkley	Second week in April	"
Mrs. F. S. Vallis	End of March	"
Mrs. G. Milham	First week in April	"
Mrs. Greenfield	"	"
Mrs. J. C. Neville	First week in May	First crown
Sensation	End of March	Second crown
W. R. Church	"	"
J. R. Upton	"	"
Alfriston	Third week in May	First crown
Mrs. J. I. Thorneycroft	Natural break	"
Exmouth Crimson	First week in April	Second crown

In every case where the plants have not made their break naturally as recommended by the end of the third week in May, they should be pinched without further delay, and grown on to the first crown buds as specified. If the cuttings are inserted during December you should have little difficulty in achieving your purpose with the resulting plants.

PUBLICATIONS RECEIVED.

We have received the Christmas numbers of the *Wide World Magazine*, the *Captain*, and the *Ladies' Field* from Messrs. George Newnes, Limited, Southampton Street, Strand, and the December number of the *Studio*, which in its enlarged form has an increased interest. Mr. G. H. Boughton, R.A., has written for the December number his reminiscences of a long and intimate personal friendship with the late Mr. Whistler. The article will be entitled "A Few of the Various Whistlers I have Known." Part III. of *Great Masters* (William Heinemann) is, we think, the most interesting of the series so far; it is a superb work, and each part (price 5s.) contains four plates. The contents of the present part are as follows: "Portrait of a Lady" (Ghirlandajo), "George Glaze" (Holbein), "Castle Benthelm" (Ruijsdael), and "The Surrender of Breda" (Velasquez). This work will make a magnificent volume when completed.

CATALOGUES RECEIVED.

Chrysanthemums.—Messrs. Clibran, Altrincham. **Nursery Stock.**—Messrs. Dicksons and Co., nurserymen, Edinburgh; Messrs. B. S. Williams and Son, Upper Holloway N.; Messrs. Hogg and Wood, Coldstream and Duns, N.B.

GARDENING APPOINTMENTS.

MR. E. SMITH, Royal Horticultural Society's Gardens, Chiswick, has been appointed head gardener to Rayner Storr, Esq., Highcombe Edge, Hindhead, and enters on his duties on the 7th inst. MR. J. GIBSON, for the past five and a-half years head gardener at Danesheld, Marlow, has been appointed in a similar capacity to E. Steinkopf, Esq., Lydhurst, Hayward's Heath, and enters on his duties in the new year.

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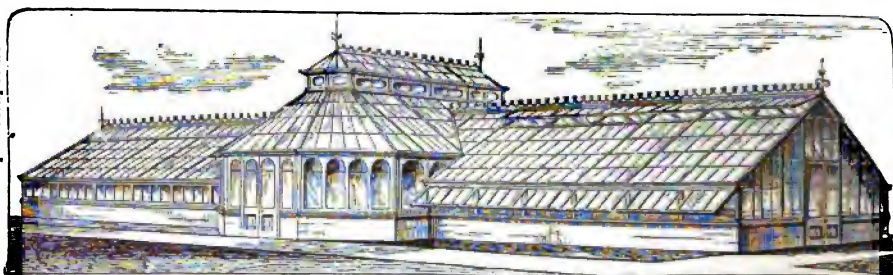
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THE GARDEN

No. 1673.—Vol. LXIV.]

[DECEMBER 12, 1903.]

A WELL-COLOURED FLOWER BORDER.

FLOWER borders in general would be much more beautiful if they were arranged in a careful sequence of colouring as recently described by Captain Reid (page 375).

As I have often worked through such a colour scheme in flower borders, possibly I may be able to suggest something here and there, even to an amateur of such well-known ability, and may be perhaps excused if on a point or two I express a doubt.

I cannot but think that the proposed ground-work of Winter Aconite in the yellow region is almost out of place in a mixed border. Their time of blooming is so early that they could have no connexion with anything else in the border, whereas it is charming to come upon a little or big patch of its cheery little yellow flowers in some place where they have it all to themselves, as under the edges of some deciduous tree. But in my own practice I keep all bulbs, except Lilies, out of the border; but then mine is a light, sandy soil that has to be perpetually enriched, and the garden in question I believe to be on a rich loam, where plants can be left longer undisturbed. My practice also differs from Captain Reid's in that I make large use of half-hardy annuals and some tender things for the summer.

"Hints for an edging to this section" (that of pinks and scarlets) are asked for. *Anemone fulgens*, scarlet and pink; *A. coronaria*, *Phlox setacea* and vars. and *P. amœna*, *Zauschneria*, *Megasea cordifolia*, whose leaves turn red or red-bronze; *Chelone Lyoni*, with beautiful foliage that does the same, and has a spike of dainty cool pink flowers; *Daphne Cneorum* should be tried; *Æthionemas* among stones, preferably limestone. I see stones are used with good effect near the front of the border. Further back the grand *Monarda* (scarlet *Bergamot*).

The next want puzzles me: "Something superlatively lovely, free-blooming, and sweet-smelling as an edging to Yuccas and other spiky things." I could do the lovely, free-blooming, or sweet-smelling separately, but not all three in one, but can propose a white *Clematis* trained low about the stems of the Yuccas, with just a trail or two rising among their leaves; or a white *Everlasting Pea* planted 5 feet back and trained down. Frankly, I am frightened at the idea of something

sweet-smelling at the foot of Yuccas. The sweet scent suggests sudden bendings towards its origin, and possible danger to eyes from the murderous sword-points of the Yucca's leaves. But then I am oldish and half blind, and those who are younger and can see are no doubt more alert, as well as more safely venturesome.

My own Yuccas have for the most part no edging, the moderate sized *Y. flaccida* coming forward to the path. Their whole port and aspect seem to me so important and commanding that they appear to want to stand alone. But it is true that I have at one point, or rather at one yard and a half, a planting of *Stachys lanata*, whose fluffy whiteness of foliage certainly goes well with the hard blueness of the Yuccas. My own feeling is that in the case of plants so superb in themselves, whether in bloom or not, that you want to let them alone, or only combine them with plants of lowlier quietude—not with anything that attracts attention to itself.

Blue-flowered shrubs.—The only ones I can think of are: *Ceanothus* (*Gloire de Versailles* the best), the blue *Hibiscus syriacus*, and *Caryopteris Mastacanthus*. Blue plants of moderate height are here supplemented by the glorious *Salvia patens* and the Cape Daisy (*Agathæa*), and rather important bluish foliage, *Lyme-grass* and *Seakale*. This year I am planting *Rue* among my blues. The low-growing *Delphinium grandiflorum* (the *D. sinense* of my younger days) is one of the best of front row blues.

West Surrey.

G. J.

HOLLIES FOR THE WOODLAND.

ATTENTION has lately been drawn to the beauty and fitness of our native Holly for various garden purposes, but we can hardly be reminded too often of its great importance and value in the home plantations or woodland fringes of well-kept grounds. It is a mistake, where the conditions are not absolutely congenial, to try to acclimatise foreign trees of doubtful hardiness, beautiful and desirable as they may be, like some of the tender conifers. It is useless to battle against climate and soil when loss of precious time is too likely to be the only and most disappointing result. Far better to be content with well-assured success than risk failure while such grand material of indigenous growth lies ready to hand. It matters little in which county our lot may be cast, Holly will give us no qualms—it is equally happy, north or south, in our British Isles. It will thrive in any soil, rich or poor,

bog only excepted, and, when fully established, is afraid of neither wind nor frost nor scorching summer heat. It is scarcely too much, indeed, to say in its favour that no evergreen tree of temperate climes can surpass—even if it can equal—a well-grown example of this common English tree. No wonder then that our most skilful growers should have given their best efforts to produce new varieties, some of which are of remarkable beauty. Many of these are admirably adapted for the semi-cultivated woodland which often goes by the name of the Wilderness, where the natural growth is partly cleared to make room for specimens of flowering shrubs and trees of suitable character. But for the woodland proper we want nothing better than the sort with which kind Nature has provided us.

The Holly is so essentially a tree which may be associated with others, notwithstanding its integral beauty, that its somewhat slow maturing is considerably atoned for. We can afford to wait for its full effect. A most essential point—too often overlooked in all kinds of planting—is to allow plenty of room for later development. Whether the Hollies are destined for single specimens or are grouped in clumps, it is well to place them in the company of quicker growing but less worthy nurse trees, which can be taken away without compunction when they have served their purpose.

The woodland may be composed mainly of Oak or Chestnut or Larch, or a mixture of all three, yet we can make no mistake in planting Hollies without stint amongst them, and especially on the outskirts of the plantation. Their glossy persistent greenery contrasts well with all kinds of deciduous trees, whether in leafy summer or bare-boughed winter, and gives a sense of solid comfort and prosperity, which seems somehow to belong to no other growing thing. We take it for granted when we come upon Hollies, well placed and well cared for, in a roadside plantation that we are within the precincts of a well-ordered English home.

There is a popular notion, we will not call it fallacy, because there is no doubt sound sense and shrewd observation to vouch for it, that nothing will grow under the Beech. Exception, perhaps, may prove the rule, but passing not long since through a fine belt of trees skirting a park, composed chiefly of Beech of splendid proportions, the vigorous undergrowth of Holly was remarkable. Fine clumps here and there had been placed with excellent judgment amongst the Beeches, and gave ample evidence of being not only content but also in perfect accord with their environment. These were, of course, spreading bushes rather than trees, yet it might be well to stow away in our memories as a fact that the Beech need not always be inimical to the Holly, but that they may be planted together where it is desirable to do so. In the case alluded to, the nature of the soil may have been a potent factor, as it was.

evidently rich enough to support an exhausting tree like the hungry Beech, with something to spare for the Hollies beneath their shade.

A natural combination occurs to mind which may often be met with in chalk districts—of groups of goodly Holly bushes intermingled with silvery White-beam—a union most happy in telling summer effect wherever it may be found, but scarcely ever seen as the result of premeditated arrangement. Whether as rounded clumps of spreading growth, however, or as stately trees, reared on smooth grey trunk and tapering to the sky, our English woodlands would be robbed indeed of an essential part of their sylvan beauty if the turn of Fortune's wheel ruled Holly out of date. There are symptoms that it is beginning to be looked upon as a common thing, hence a note of warning that it is not being planted quite so freely as in days of yore.

APPEAL FROM BARON SIR HENRY SCHRODER, BART.

WE have received the following letter from Baron Schröder. No one has taken greater interest in the building of the new Hall than this keen horticulturist, and we hope the appeal will meet with a quick and liberal response:

"The new Hall of the society—so anxiously desired by the Fellows—is now in course of erection, and will, the council hope, be completed for use by midsummer next. The total cost of the hall, offices, library, &c., including furniture, will be about £40,000, and the council, of which I am a member, are most anxious to open the building free of debt. Towards this sum £23,000 has been contributed, of which no less than £8,471 has been given by the council and officers of the society. There thus remains a balance of £17,000 still to be raised.

"At present only about one in ten of the Fellows has contributed to the building fund. In the hope that the others will see their way to do so I have been asked to make this appeal. If every Fellow would kindly forward a contribution—some giving more and some less—the desired object would be attained, and the anxiety of the council on this point at an end.

"I annex a list of the amounts already contributed, and, being personally so greatly interested in the completion of the building, I earnestly trust you will respond as liberally as you can to my appeal.

"J. H. W. SCHRODER.

"145, Leadenhall Street, London, E.C."

[Cheques should be sent to the address given, or to the secretary of the appeal committee, Mr. G. J. Ingram, 117, Victoria Street, London. The appeal committee consists of Baron Schröder (chairman), Mr. J. Gurney Fowler (treasurer), and Messrs. H. J. Veitch, F.L.S., and H. B. May.—Ed.]

KEW NOTES.

INTERESTING PLANTS IN FLOWER.

Temperate House.

BAROSMA LANCEOLATA, *Correa speciosa* varieties, *Dermatobotrys Saundersiae*, *Felicia reflexa*, *Grevillea thelemanniana*, and *Olearia ramulosa*.

Orchid Houses.

Aerides quinquevulnerum, *Bifrenaria Charlesworthii*, *Bulbophyllum Pechelii*, *Calanthe microglossa*, *C. Veitchii*, *C. vestita* varieties, *Catasetum Hookeri*, *Cattleya luteola*, *Cynoches pentadactylon*, *Cypripedium carolinianum*, *C. concoloraure*, *C. insignis* and a yellow variety, *Epidendrum Endresii*,

E. Wallisii, *Lycaste Skinneri*, *Maadevallia ignea*, *M. tovarensis*, *Odontoglossum crispum*, *O. maculatum* var. *donnianum*, *O. ornithorhynchum*, *Oncidium varicosum* and others, *Phalaenopsis Esmeralda*, *Platyclinis cobbiana*, *Pleurothallis pachyglotta*, *Restrepia striata*, *Sarcanthus secundus*, *Selenipedium klotzschianum*, *Sophronis grandiflora*, and *Stelis tristyla*.

Palm House.

Brownea Crawfordii, *Dracaena thalioides*, and *Manettia cordifolia*.

T Range.

Begonia polyantha, *B. socotrana*, *B. Gloire de Lorraine*, *B. Turnford Hall*, *Clerodendron umbellatum*, *Crassula Saxifraga*, *C. Septas*, *Erica melanthra*, *Euphorbia fulgens*, *Ipomoea Horsfalliae* var. *Briggsii*, *Jacobinia chrysostephana*, *Plectranthus crassus*, *Plumbago rosea*, and *Urania crinita*.

Greenhouse.

Carnations, *Epacris* and *Ericas* in variety, *Eriostemon myoporoides*, *Jacobinia coccinea*, *Luculia gratissima*, *Reinwardtia tetragyna*, *R. trigyna*, *Roman Hyacinths*, *Salvia splendens*, and other things.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

December 15.—Royal Horticultural Society's Meeting, Drill Hall, Westminster; Horticultural Club Monthly House Dinner; Discussion opened by Mr. George Bunyard; National Dahlia Society, Annual Meeting, Hotel Windsor, 3 p.m.; Committee Meeting, 2 p.m.

Royal Horticultural Society.—The next fruit and flower show of this society will be held on Tuesday next in the Drill Hall, Buckingham Gate, Westminster, 1–4 p.m. The committees will meet, as usual, at noon. A general meeting for the election of new Fellows will take place at three o'clock. At a general meeting of the society, held on the 24th ult., fifty-eight new Fellows were elected, amongst them being His Highness Prince Frederick Duple Singh, Lady Emily Dyke, the Hon. Mrs. Cecil Bingham, the Hon. Mrs. Edward Portman, the Hon. Mrs. Henry Denison, the Hon. Mrs. E. Theisger, the Hon. Lillian Elphinstone, and the Hon. the Minister of Agriculture for British Columbia, making a total of 1,339 new Fellows elected since the beginning of the present year.

Presentation to Mr. Robert Sydenham.—On the 27th ult., the occasion of the annual meeting of the Midland Carnation and Picotee Society, Mr. Robert Sydenham, whose enthusiasm in all things concerning horticulture in Birmingham is well known, was presented by Mr. W. H. Parton, jun., the honorary treasurer, on behalf of the society, with a magnificent illuminated address in album form, as some slight recognition of his valuable services to the society during the first twelve years of its history. The text of the address is as follows: "To Mr. Robert Sydenham. Dear Sir,—We, the members of the Midland Carnation and Picotee Society, desire to express our extreme regret that you have found it imperative to retire from active work in connexion with our society. It was entirely through your influence that the society was founded in the year 1891, and we avail ourselves of the present opportunity of tendering to you our sincere thanks for the valuable time you have devoted, and the untiring efforts and important help you have given during the twelve years you have acted as chairman of the committee and treasurer, and which has been to so great an extent instrumental in gaining the reputation and promoting the best interests of our society. We have much pleasure in asking your acceptance of this address, together with the accompanying group of your well-wishers, as a token of our appreciation and regard, and we earnestly hope that you may be spared for many years to enjoy the respect and esteem of your numerous friends and all those associated with you, which you have always so deservedly possessed. Birmingham, August, 1903." Professor

Hillhouse was to have made the presentation, but through ill-health he was unable to be present. Mr. Parton, also on behalf of the society, presented Mr. Herbert Smith, the hon. secretary, with a framed copy of the photograph as mentioned in the testimonial, for the duties which he has carried out so thoroughly for the past ten years. Professor Hillhouse's letter is a testimony to the value of Mr. Sydenham's work. The Professor writes: "I do not believe there is any one man to whom in the last fifteen years or so the lover of flowers owes more than to Robert Sydenham. His name is a household word to all bulb growers; and he has made such by thousands where they had not, and probably but for him, would not have existed. I should like to speculate upon the aggregate amount of brightness he has been instrumental in adding to our English homes in winter. But to us who know the man there is much more than this. I freely confess that in my first year of contact with him, his grand enthusiasm, his buoyant optimism, his tireless energy, his downright goodness of heart were a revelation to me . . . and an inspiration. The Carnation and Picotee Society has been the child of Mr. Sydenham's love. Those who know the difficulties facing the initiation, and still more the continuance of a high-class flower show, will be the first to admit that nothing short of his indomitable energy could have brought a provincial show in so few years into the very front rank of special flower shows. To the thought, work, and ever-ready purse of Robert Sydenham the Carnation and Picotee Society owes more than it can adequately express, and I can only deeply regret that my own unfortunate illness deprives me of the opportunity of at least attempting on its behalf to put into words something of what our feelings are." Among those present were Mr. Luke, J. Sharp, the Rev. C. A. Gottwaltz, A. W. Jones, C. H. Herbert, C. F. Thurston, A. Chatwin, W. Spinks, A. R. Brown, W. B. Latham, and Herbert Smith. Mr. Sydenham promised to do all he could to maintain the high position the society had gained. Pressure of business prevented him devoting as much time to it as he had done, but they might rely on having his hearty support.

Potato Northern Star diseased.—Though I have not grown this variety, I have endeavoured to find out as much as possible about it. From the first I could never understand why it realised such exorbitant prices, and I am still more surprised at the high figure now asked. I understood that it is practically disease-proof, and had it been so it would undoubtedly have been worthy of all that has been said in its favour. I was particularly struck with it at the late Southampton Chrysanthemum show, a large collection of Potatoes being exhibited by a local firm, and among them was Northern Star. To my great surprise, after going carefully through each variety, this particular kind was the most seriously affected with disease of any, many of the tubers being badly infested. I called the attention of the representative of the firm to this, and he had to admit it was so, and the same was also observed by my colleagues. I have also heard from others who have grown it that it has suffered very badly from disease. Then as to appearance, it has certainly but little to recommend it, and for quality it is considered inferior by many. It may be a heavy cropper, and so are many other well-tried varieties, which have all the characteristics of a high-class Potato. I do not for one moment wish to discourage the raising of new and improved kinds of either Potatoes or other vegetables, but I shall be surprised if this variety ever proves to be all that is claimed for it. Many readers of THE GARDEN I am sure besides myself would be interested to hear from those who have grown it during the past season. What are their opinions, particularly relating to its disease-resisting qualities?—E. BECKETT.

The Gardeners' Royal Benevolent Institution.—We are pleased to announce that the annual festival dinner in aid of the funds of this institution will be held at the Hotel Metropole, London, in June next, when Harry J. Veitch, Esq., the treasurer, will preside. The exact date will be announced shortly.

November Roses.—The following note may be of interest to some readers of THE GARDEN. After reading several interesting notes with regard to the late flowering and fruiting of various plants, I thought a few words with reference to the quantity of late Roses that we have gathered quite recently might be of interest. There was a large house party here on the 12th ult., and having to decorate extensively all the flowers used for the dinner table consisted of Roses gathered from the open, as also did the ladies' sprays and gentlemen's buttonholes. Altogether we made use of about 150 good Roses. It was a very rare sight for so late a date, and they were very much admired. I may add that we are still gathering from the open some very fair buds indeed.—A. R. SEARLE, *The Gardens, Castle Ashby, Northampton.*

Hydrocyanic acid gas in horticulture.—A series of experiments is now being carried out in the Royal Botanic Society's Gardens, Regent's Park, with the object of thoroughly testing the value of this gas for the destruction of insect pests. The fumes are of a very destructive nature, and, therefore, no person must be allowed to enter the house during the operation. The method in use is claimed by its inventor as entirely new, and when better known and understood I have no doubt it will be largely adopted. Its action on mealy bug is thoroughly successful, without damage to foliage, but as to the result on eggs of insects this has yet to be proved. In addition to the above, other experiments are being conducted with a view to destroying insect life in the soil; and provided these are successful, a cheap and ready means will be at hand for eradicating these pests.—ELDERBERT F. HAWES.

Chrysanthemum Belle of Weybridge.—This variety is the result of a cross between Annie Holden and Framfield Beauty; the colour is vivid crimson in the early stage, shading to chestnut-crimson with age. It has a bright yellow disc, and the petals reflex at different angles, suggesting a Cactus Dahlia. It was given an award of merit by the floral committee, Royal Horticultural Society, on November 18, 1902. The raiser is Mr. F. W. Smith, gardener to G. Ferguson, Esq., the Hollies, Weybridge.

Too many "Ponticums."—We are threatened with the marring of our best home landscapes by the ill-judged planting of the common *Rhododendron ponticum*. The fact that it is rabbit proof, and that it grows rapidly and flowers well in light soils, has caused an indiscriminate use of it. For cover, experience has shown us that it is totally unfit—rabbits, indeed, lie in it, and it is difficult to beat them out, but pheasants never enter it. This does not seem to be from any noxious properties in the plant, but because they cannot run freely between the close-growing stems as they can under other bushes. All shrubs are apt to annoy the eye if over frequent, and this is just the error into which we are falling with our ponticums. As a rule the *Rhododendron* is best used in what are termed middle distances. It is there you will best enjoy its blossom in June and its verdure in winter. Do not plant it close to the eye, under the windows of your sitting-rooms, or along the terrace margins or walks. Keep those choice bits for choicer plants, for delicate shrubs, or the finer hybrid *Rhododendrons*, the foliage of which is better than that of ponticum. But hang them thickly on that sunny hillside up to the very crest, and fill with rich masses that dell, into which you look down from the frail foot-bridge, or the solitary wood walk high above; then you will know how to enjoy your *Rhododendrons* as you never did before.—*Flora and Sylva* (November).

Pentstemon Newbury Gem.—What a charming plant this is in the open border in the autumn! I have to-day (November 28) cut a handful of handsome flower spikes. Arranged as they are with *Aster Tradescantii*, a capital effect is made with the brilliant red of the *Pentstemon* and the pure white graceful-looking *Aster*. Few persons appear to know this *Pentstemon*, which has small leaves and flowers, too, as *Pentstemons* go nowadays.

As a mass in a bed or in a border it continues to flower incessantly from the time it begins in July until Christmas if too severe frost is not experienced. Though this *Pentstemon* is hardy in many gardens it is better raised from cuttings yearly.—E. M., *Bishop's Waltham.*

Plants beneath trees.—In the reprint of the article on "Bulbous Plants to Grow Beneath Trees," from the *Revue Horticole*, which appeared on page 356, mention is made of *Cyclamen neapolitanum*. This plant is used altogether too sparingly for growing beneath evergreen trees, in which position it succeeds admirably, and is attractive for a lengthened period, commencing in the autumn, when its rosy or white flowers are thrown up, and continuing throughout the entire winter, during which time the ground is thickly carpeted with the large, beautifully-marbled leaves. In Cornish gardens the delightful effect produced by this *Cyclamen*, which is often met with under the name of *C. hederifolium*, when grown under evergreens is to be fully appreciated, for there specimens of *Pinus insignis* and other conifers are to be seen with the ground beneath



CHRYSANTHEMUM BELLE OF WEYBRIDGE.

their branches covered with marbled leaves up to the very trunks. Old corms of this *Cyclamen* attain an immense size, some that I have seen being as much as 10 inches or 12 inches in diameter.

Cypella plumbea.—In writing on the above plant (page 352) I mentioned that I believed it was also known under the name of *Pohlia platensis*. Since my note appeared I have received a letter from Mr. W. E. Gumbleton, in which he says that the two plants are quite distinct. He writes: "Cypella plumbea is a much larger flower than *Pohlia platensis*, which is a fine, deep blue, whereas *Cypella plumbea* is so pale that it is almost white." This accounts for the difference of colour in the flowers of *Cypella plumbea* which I have alluded to before in these columns. Doubtless the dark-flowered plants, though grown under the name of *Cypella plumbea*, were *Pohlia platensis*. In a catalogue I have by me the two are given as synonymous.

Trachelospermum jasminoides.—I notice that in my note on "Rare Plants at Mount Edgecumbe" (page 356), I inadvertently gave the name of the flowering creeper that covered the front of the summer-house in the terrace garden

as *Solanum jasminoides*, whereas I should have written *Trachelospermum* (*Rhynchospermum*) *jasminoides*. The flowers of the *Solanum* are not scented, but those of the *Trachelospermum* are deliciously fragrant. The latter climber is quite hardy in the south-west, and is constantly to be seen flowering profusely on walls in August and September, and often holds its blossoms till well on in November. The front porch of a Cornish house is completely covered with the *Trachelospermum*, which is a beautiful sight when in full bloom.—S. W. FITZHERBERT.

Rose Gilbert Nabonnand.—Among many other varieties this has been the most useful during a very unpropitious autumn. It seems to revel in the most inclement weather, when for weeks flowers and foliage were dripping with rain, and various other sorts presented a pitiable and bedraggled appearance. Even at the end of November it was studded with buds and flowers, and its foliage was as fresh as it has been all the season. It might well be supplemented to "P.'s" list of Roses with persistent foliage on page 374. It makes a striking contrast to a neighbouring bed of Bessie Brown, which, excepting for a week or two in early summer, has been a miserable failure. Other kinds have flowered well, but without their foliage are not nearly so charming as the above.—E. HARRISS.

Gooseberry culture.—When a Kentish grower of fruit for market states that his crop of Gooseberries this year was 300 tons less than the normal one, an idea is given of the extent to which some growers indulge in the luxury of fruit culture. That the great deficiency of produce thus mentioned was to some extent compensated for by the enhanced price of what was sold may be taken for granted, but a deficiency on one of these huge fruit farms of 300 tons of one description of fruit is enough to make anyone gasp. But the grower in question holds strictly to the opinion that whether you grow largely or moderately for market you should restrict yourself to few varieties, and of these have the best for your purpose. Thus in Gooseberries small fruits of high flavour are useless. It is when berries are in a green state that prices are good and most money is made. Probably four-fifths of the crop is gathered green and thus marketed. There is too much risk incidental to allowing berries to hang and ripen. No matter how heavy the crop of berries on a bush may be it always pays to gather some when they are about half-grown, and if but one-fourth of the produce be then removed not only does the price obtained more than compensate for the lack of size, but the relief afforded to the bushes is of the greatest value in helping the rest of the berries to swell up all the more rapidly. When the entire crop is thus early removed the bushes have time to recuperate. When bushes are planted in good holding ground, kept fairly pruned, free from weeds, thinned, and frequently top-dressed

with manure, they go on from year to year fruiting profusely. Hence the Gooseberry is, when well cared for, the most profitable of all hardy fruits for marketing. The heavy crops annually produced keep the bushes fruitful under high-class culture. One great Kentish grower has stated that because of the poor crop of fruit and the abundance of rain wood growth was this season exceptionally strong. That is not good news. There is so much reason to fear that strong, sappy wood, especially as the Gooseberry fruits so largely on the growth of the preceding year, may not prove to be so fruitful as growth made under ordinary conditions. That is a danger against which it seems difficult to provide. It may be well, perhaps, to shorten back shoots when pruning takes place rather harder than usual, as the points would be the least matured. Also to thin rather less, as in that way should what may be naturally anticipated follow, there would be greater reason to look for a medium crop rather than a poor one. What is seen on fruitless Gooseberry bushes is also too much a feature of fruit trees in general. That there will be again a big bloom seems certain, as the buds are very

plentiful, but whether those buds can under the weather conditions of the summer and autumn prove to be fertile ones has yet to be seen. Kentish Gooseberry growers have a very high opinion of Keepsake (yellow), and grow it extensively. Middlesex growers most favour Lancashire Lad. In some other places Crown Bob is preferred, but all three—the two latter being red—when ripe are of the very best for market culture. Allied to these are Whinham's Industry (red), Rifleman (red), and Whitesmith (white). Whilst productive of fine berries, these are also great and persistent croppers. Growers in a large way put down a new breadth of young bushes every year, so that old breadths when becoming weak or thin can be cleared off without loss.—A. D.

East End Window Gardening Society.—We have received the following note from the Rev. Richard Free, St. Cuthbert's Lodge, Millwall, E.: "Will you allow me to appeal to the generosity of those of your readers who are interested in window gardening among the poor, and have resources at hand? They can help us very materially by sending us at once bulbs of Tulips, Daffodils, and Crocuses of the best and brightest colours. We do not want, later in the season, gardeners' leavings which nobody can use. That is not the idea. If the dreariness of the East End is to be brightened at all it should be brightened by the best. Our Window Gardening Society has done wonders for the West Ferry Road, but it ought to do a great deal more. The freshness, fragrance, and beauty of the country could easily be brought home to the dwellers among those sordid surroundings if only our friends would do their best to help us. And if contributions in kind are not forthcoming, we are in no wise averse to accepting money, for the expenses of a venture of this kind are heavy and are apt to prove an unusual drain upon our church funds."

Wisley trials.—The extract you gave from the latest issue of the Journal of the Royal Horticultural Society at page 323, referring to trials at Wisley next year, seems likely to be falsified, as, much to the disappointment of the members, it was stated at the last meeting of the fruit and vegetable committee that there would be no trials at Wisley next year. What obstacles to such trials have arisen since the issue of the Royal Horticultural Society's Journal I do not know, but it is, indeed, matter for surprise that there should be no trials, seeing that trenching a couple of acres of ground, manuring it, and sowing or planting it with Peas, Potatoes, Cauliflowers, and other things cannot be a great difficulty. Why these trials are stopped so far no explanation is given. Certainly after the request made to persons interested in them has been so widely published in the Journal, assuming what was told the fruit committee was correct, no time should be lost in advising all concerned that no trials will take place. The statement has naturally been productive of much disappointment.—A. D.

California in 1903.—It is as much the fashion in this part of the world as in older portions to speak of each season as "the most peculiar, unprecedented," &c., yet, in these days of weather bureaus and systematic records, there is a standard for judging climatic conditions, and measured by that of fifty years' records the year which is nearing its close has had few equals in oddity. The rainfall of the winter of 1902 and 1903 was ample. At Ukiah 34.5 inches fell, and throughout Northern California the fall was well distributed and ample, while in the southern portion—"south of the Tehachipi," as we say—where the rainfall is often insufficient, unless reinforced by irrigation, it was unusually good. In Northern California April is apt to be a rainy month; good showers are usual in May, and the farmer seldom sees his hay crop harvested in June without at least one wetting; July and August are rainless, and only a shower is to be expected in September. This year there was a light shower on the last day of March, and from that day to October 9, when there was a heavy fall, and November 7 to November 12 with 3.66 inches, not so much fell as to damp the dust. Southern California, on the other hand, had fine rains in April and early May.

As week after week of our spring passed the outlook seemed more and more hopeless, grass which was well started soon dried up, the flowers in sunny places reached a poor, premature blossoming, and the shrubbery on the mountain sides showed its thirst plainly. In May everything seemed as dry as is usually the case in July; the weather, however, continued cool, and fogs were more frequent than usual. The harvest of grains was a surprise. In many places it was very large, in all far more than the conditions seemed to warrant, and the farmer with his lighter crop is more than usually prosperous. Fodder suffered the most. It really looked as if the sturdy stock which was pastured on our mountain sides must inevitably suffer from hunger before autumn, as the grass was so poor, yet autumn saw them in good condition, and in these extensive regions, where Oaks grow, the heavy crop of Acorns has fattened them well. Late frosts injured some fruits; but the Prune crop is large in quantity and by far the best in quality ever grown in California. The Grape crop, both of wine and raisin Grapes, was most excellent, and many other fruits were good in sections. Hops were excellent in quality and fair in quantity, and when all is summed up I doubt if prosperity were ever more widely distributed than in this exceedingly dry year. This for Northern California. In Southern California, with the late rains, every branch of agriculture and horticulture is unusually favoured. There were days of very high temperature, but they were few in number; twice the record of seventeen years was equalled in that respect. The inauguration of a national policy of irrigation this year means much to the western portion of the United States. Agriculture cannot be carried on in any part of the State of Nevada without irrigation, while with it the produce is very large. The United States Government has just begun an irrigation canal, which will irrigate acres of very rich land now a desert. It is estimated that this alone will make place for 50,000 people. The land to be irrigated belongs to the Government, and when reclaimed from the desert will be sold and the proceeds used to create a revolving fund for reclaiming other country. The same broad policy is being carried out in all the arid belt, and will work wonders in a few years.—CARL PURDY.

Phyllostachys Henonis.—In his book "The Bamboo Garden" Lord Redesdale awards to this Bamboo the palm, as being the most beautiful of all the truly hardy species. At the time this work appeared it was not so well known as it is now, but every year has given additional support to Lord Redesdale's verdict. In the Bamboo Grove at Kew *Phyllostachys Henonis* is the richest and most luxuriant in foliage of all the Bamboos, and in gracefulness of mien it surpasses them all. It belongs no doubt to the *P. nigra* type, but to cultivators of Bamboos it is easily distinguished from its near allies by the peculiarly thick, plumose character of its growth. The leaves are of the richest and most brilliant green. In rich soil and in a sheltered spot it will get to be nearly or quite 20 feet high. It is not so common or so cheap as several Bamboos, but it is well worth the extra cost.—W. J. BEAN.

Winter-flowering Colchicums.—Although the majority of the more familiar Meadow Saffrons flower in the autumn, there are a few exceptions, and from the countries of the East we get some species which do not bloom until winter or early spring. Belonging to this section are the following three species, which at the present time are in flower. *C. libanoticum* is found near the summit of the mountains of Lebanon in Syria. Resembling *C. montanum* in general appearance, it differs in having broader and shorter leaves and yellow stamens, and also in its winter-flowering character. *C. montanum* not flowering till the spring. The two species differ also in the number of flowers produced from each corm, the latter having two to three with the same number of leaves, while *C. libanoticum* has four to five rather larger flowers, with broader segments and a corresponding number of leaves. The flowers range in colour from white to pale rose. Corms of this species were obtained from Palestine in 1900, flowering the same winter. *C. luteum* comes from

the mountains of the extreme west of India, where it is found at an elevation of 7,000 feet in Kashmir and Afghanistan. This rare little plant is unique in being the only yellow-flowered species in cultivation. The size of the large corms is out of all proportion to that part of the plant produced above ground. About 3 inches to 4 inches high, with a slender tube and ovate perianth segments, the flowers are usually solitary, attended by two linear strap-shaped leaves. Introduced in 1874. Under the name of *C. sieheanum* corms were received this year from Mr. W. Siehe of Mersina. It is a pretty little plant in the way of the Hungarian *C. arenarium*, which it resembles in stature and in the colour of its flowers. *C. arenarium* is, however, an autumn-flowering plant, the leaves not appearing till spring. The present species produces flowers and leaves at the same time, it began to flower this year at the end of November. The flowers are of a rich reddish purple.—W. IRVING.

Southampton Horticultural Society.—Mr. E. S. Fuidge, the secretary, writes that the summer show of this society will be held on July 6 and 7, and the autumn show on November 2 and 3 next year.

Commons and Footpaths Preservation Society.—The report of the Kent and Surrey committee for 1902-3 mentions that the committee's aid was sought in over forty cases involving the preservation of commons, village greens, or open spaces in numerous parishes in these two counties. In addition to the work of protecting commons and open spaces, no fewer than sixty-eight cases of interference with rights of way were dealt with by the committee. Thus more cases were dealt with in 1902 than in any previous year. Although the work in Kent and Surrey continues to grow both in importance and value, the income of the committee remains totally inadequate and practically stationary. There are thousands of persons who, while deriving direct advantage and healthful recreation from the operations of the committee, do not realise that it is only through its efforts that scores of rights of way are still open and hundreds of acres of common land remain unenclosed. To these the committee venture to appeal earnestly for support.

Cattleya sylvanus.—This hybrid, between *C. Alexandrae* and *C. labiata*, is a splendid addition to those already in existence. The flowers are on erect stems, well above the foliage (characteristic of *C. Alexandrae*), and are shown to the best advantage. In this cross *C. Alexandrae* asserts itself in a far greater degree than *C. labiata*, but at the same time the hybrid is quite distinct from both parents. The three outer segments and the two upper petals are of an almost uniform bronzy reddish colour, with a suffusion of purple, and, curiously enough, are nearly equal in size and character, each one being handsomely undulated on the margins. The upper sepal is slightly smaller than the others; the petals are, however, rather the larger of the two, and have an ascending tendency as in *C. Alexandrae*. The labellum is, in comparison, large, very showy, and distinctly three-lobed, the side or upper lobes being very conspicuous. These lobes finish off into quite a sharp point, and have a line of purple colour on the front of each lobe, while the remaining portion is light rose. The front or middle lobe is large and very conspicuous, quite 1½ inches across, and is in charming contrast to the bronzy colour of the sepals and petals. The centre of the labellum is of an exquisite shade of purple-crimson, deep and rich, as in some varieties of *C. labiata*, fading away at the outer margins to rosy purple. The veining, which is of a darker hue, shows up on the light groundwork of the margin in a marked degree. This is one of the most desirable of all *Cattleyas*, and is now flowering in the collection of Mr. Robert H. Measures of The Woodlands, Streatham, S.W.—ARGUTUS.

Chrysanthemums in the Glasgow Parks.—A large number of *Chrysanthemums* are grown in the various Glasgow parks, and in those where there is sufficient accommodation under glass a display is made annually of large blooms as well as of the smaller decorative varieties.

While this is the case, the principal display is made at Camphill, where a house is devoted to a large number of Japanese and incurved Chrysanthemums grown for large blooms. These have been tastefully arranged, and, although now getting past their best, they are wonderfully fine for such a season, and should not be missed by those who have an opportunity of seeing them. The season has been one of the worst known for Chrysanthemums, and, as Mr. Molver, the able park foreman says, "one is glad to get any bud." Show blooms have not been desired, but there are many which would hold their own well in a competition, while the whole effect is all that could have been wished. The collection is very large, and only a few could be noted as representative of those which one would consider among the best; these were Mrs. J. Beisant, W. R. Church, Charles Davis, Lord Ludlow, Mrs. Greenfield (very fine), Mr. Coomber, Chas. H. Curtis, Swanley Giant, Mme. Lawrence Zede, Exmouth Rival, Lady Hanham, and a fine dark sport from Mrs. Bilsland. There are hundreds of plants of the smaller Japanese, Pompons, &c., and among them one may name Godfrey's Pet, a very fine yellow, decorative, small-flowered Japanese. The display of these will be maintained for a long time still.—S. A.

TREES AND SHRUBS.

SHRUBS IN A WIGTONSHIRE GARDEN.

WHEN paying a visit to the gardens at Corswall House, Wigtonshire, the residence of Sir David Carrick Buchanan (delightfully situated on the shores of Loch Ryan), I was much astonished at the number of choice trees and shrubs there and their healthy appearance. Coming from a district in Lanarkshire, where the climate and soil are much colder, the difference was all the more noticeable. The time of my visit was late September, when fruit and foliage were beginning to wear the ruddy hues of autumn. Not even in the south of England have I seen larger groups of the New Zealand Flax (*Phormium tenax*), Fuchsias,

or of Hydrangeas, both *H. hortensis* and *H. paniculata grandiflora*.

The accompanying illustration is from a photograph of *H. paniculata grandiflora*, and conveys only a slight idea of their beauty; they are planted near the edge of a lawn and with a background of dark evergreens. Some of the panicles were fully 18 inches in length, and, borne on long, stout stems, showed to great advantage. They were planted a few years ago in a mixture of red sandstone and clay, the natural soil of the estate, and with the exception of being rigorously pruned down each season little other attention is given. A wire netting some 2 feet high is placed round about them to prevent rabbits gnawing the bark. Among other shrubs I noticed a fine plant of *Aralia Sieboldii* several feet in height, also a Blue Gum (*Eucalyptus globulus*). One of the latter has been planted against the house and trained over the front portion. Although only planted two years ago it has made some remarkable growths in so short a time, and has already covered the lower part of the front and reached 20 feet up.

Sir David, who is a great lover of shrubs and trees, has done much to improve the gardens and grounds and estate in general since taking possession a few years ago. I think there are great possibilities for sheltered gardens on the west coast of Scotland; they should vie with those in the more southern parts of Britain in wealth and beauty of choice trees and shrubs.

C. S. FOLLWELL.

THE TANSY-LEAVED THORN.

(*CRATEGUS TANACETIFOLIA*.)

THIS is one of the rarest of Thorns, and one of the most difficult to get true to name. Whilst it figures in many tree catalogues at a moderate price, very frequently, when the tree that is obtained flowers and fruits, it is found to be not *C. tanacetifolia*, but one of the forms of *C. orientalis*, or perhaps *C. Azarolus*, species that are certainly nearly allied to it, but quite distinct. The true Tansy-leaved Thorn has a large, yellow, somewhat Apple-

flavoured fruit (which is, indeed, very palatable), whilst closely attached to its base is a conspicuous, very much laciniated bract. It is this bract that distinguishes it from its near allies. In the interesting collection of trees in the arboretum at Arley Castle, in Staffordshire, there is the finest specimen of this Thorn that I have seen in this country. Some long past storm has tilted it a good deal over to one side, but it is still a picturesque object. It has a large bushy head of branches, and the trunk, at 3 feet from the ground, girths 5 feet 2 inches.

W. J. B.

THE BLUE NYMPHÆAS.

(Continued from page 384.)

RAISING SEEDLINGS.—Of this Lily, *N. gigantea*, I have sown the seed in October and flowered the plants in the April following within about six months from germination. Sometimes the seed of this and other Lilies ripens unobserved and germinates upon the mud. It is well, therefore, never to cast out the soil without a close examination for seedlings. After fertilisation has taken place the pod sinks below the water, where it matures and eventually bursts; the seeds then float for twenty-four hours or so, and afterwards sink to the bottom, and germination in due course takes place. Hence in order to secure the seed a close watch must be kept upon the seed-pods. A few years back I sowed the seed of the type of *N. stellata* in February and flowered the plants in about four months' time. I mention this merely to point out the short space of time that elapses by adopting this means of increase. Of the "Berlin" variety of *N. stellata* I have never been able to secure any seed. It is to be traced in the pod, but never appears to mature. In sowing the seed we prepare ordinary seed-pans in which the drainage holes are plugged and about an inch left for water only, the soil being as advised for the plants when put out. These pans are stood upon the hot-water pipes in a warm house, the only attention needful being that of keeping the water supply maintained. Pricking off the seedlings takes place as soon as the young plants can be safely removed by means of a pointed stick, when they are at once put into small pots, one plant in each; these are then sunk into

warm water in a tub. One more shift is given them into 4½-inch pots, and by the time they are well established therein the tanks are ready for them. We have attempted cross-fertilisation, but thus far we have not had any success worth mentioning. This may possibly have been caused by the comparatively cool treatment that has been followed on the whole. Attempts have been made, too, with the view of securing a hardy blue Nymphaea, but in this, so far, we have also been disappointed.

Insects, &c.—It must not be surmised that because these Lilies are water plants, no trouble is given to the cultivator on this score. The aphid family, of course, finds a congenial home where it can. In this instance it is the black form that occasions trouble upon the leaves, whereon they increase with surprising rapidity. If washed off by means of a syringe it matters not, for they soon regain their positions. (They appear to have accommodated themselves to the situation and acquired the art of swimming.) The best remedy, we find, is to treat them to a process of fumigation with short intervals only. It is possible to drown them, if not to destroy their eggs, when thus stupefied. We are also troubled with the small water-snails, for which a weak solution of lime is a good remedy. Injury is also done by another aquatic insect upon the under surface of the leaves, but I have not been able thus far to fix this pest. I have alluded to the



HYDRANGEA PANICULATA GRANDIFLORA IN THE GARDENS OF CORSWALL HOUSE, WIGTONSHIRE.

use of manure in the soil, and I have advised that it be excluded. I found that when it was used, notably in 1901, we had a constant source of trouble with a slimy matter that formed upon the soil, and in due course, when sufficiently charged with air, it arose to the surface. When it so happened that this matter came into contact with the under side of the leaves it was sure to injure them by causing spots in the form of decay, which spread rapidly and soon spoiled the foliage. I do not know to what else I can attribute this trouble. It is quite certain we had none of it when no manure was used in any form whatever. Under natural conditions manure does not appear at all essential. Then the only likely stimulant would be any decaying vegetable matter, and not a faecal manure in any sense of the term. Hence I am fully determined not to use any in the future.

For Use as Cut Flowers.—The best variety to use in this way is *N. gigantea*, because its flowers will remain open longer in the day; these will last good in a cut state for three or four days. The others are all disappointing in this respect, being addicted to closing prematurely when cut, i.e., when cut as fully expanded flowers in the sunshine. They are, however, most satisfactory when cut quite early in the morning, before they expand to any perceptible degree. When so cut the flowers should be placed in the dark, a cool cellar being a good place. Then if wanted—say at the time of a garden party—from three to seven or eight in the evening, the flowers will remain expanded in most reliable fashion. Our method is to fill a tub with water where it is to stand and place some soil in it, so that the flowers can thereby be supported. Then the surface is covered with Water Lily leaves and the flowers inserted. Arranged in this way they have a very pretty effect. It is not advisable to break the backs of the sepals in order to try to retain the flowers expanded for a longer time.

Change of Water in the Tanks, &c.—The simplest way to effect this is to provide a tap from which a gentle trickle can be frequently left running. If not in any way changed the water will stagnate. We like to have a few gold and silver fish in the tanks; these gain their own livelihood and assist in clearing away what might otherwise be a nuisance.

VARIETIES.

The following four varieties are in every respect excellent. I consider them to be *par excellence* the best of the blue Nymphæas:—

N. stellata (Berlin variety).—I first obtained this beautiful and most floriferous Water Lily from Mr. F. W. Moore, V.M.H., Royal Botanic Gardens, Glasnevin. I have been informed by Mr. W. Watson, of the Royal Gardens, Kew, that he first noted and secured it from Berlin; hence the definition employed. It is, under our system of cultivation, the most vigorous grower of any. Each crown will produce hundreds of flowers in the season. Upon our best plants we have repeatedly from nine to twelve flowers expanded at one time. These stand up well above the water, scarcely ever less than 12 inches and often as much as 16 inches clear of the surface. It is of a pale blue colour with golden anthers. The blue in this Lily is not at all unlike that found in the Neapolitan Violet. Its fragrance is most marked, and is distinctly that of the Violet. The reverse of the sepals is pale green. The stems of the flowers are short and support the flowers readily.*

N. gigantea.—This fine Lily was given to me originally by Mr. Low, gardener to the Duke of Grafton, at Euston Hall, Thetford. This Australian species is quite distinct from any other in every respect. Each flower has a larger number of petals than the preceding variety. In colour it is of a deeper shade of blue. In form the flowers are more incurved, whilst they are also larger. Many of its blooms measure 7 inches to 9 inches in diameter. Another of its marked characteristics is the breadth of the petals, these being wider than in any other blue Nymphæa that we grow, being

at the same time more obtuse in shape. One most striking feature of this Lily is its multiplicity of golden anthers and pollen masses.† Its season of flowering is not so prolonged as in the preceding instance. (First-class certificate, Royal Horticultural Society, June 27, 1900.)

N. pulcherrima.—This Lily is, I believe, a hybrid of American origin. In colour its flowers are distinctly of a darker tint than in the "Berlin" variety. They possess the same fragrance, but not in so marked a degree. The pedicels, or foot-stalks, are as stout, but on the whole not so long; on an average the flowers do not stand more than a foot above the water. The reverse of the sepals and the foot-stalks, too, have dark lines upon them, making it quite distinct in that respect from the "Berlin" variety. By reason of its robust growth and excellent constitution I consider this Water Lily to be the best, without exception, for outdoor cultivation in the summer in warm positions, or where the overflow water from the warm tanks can reach it. It is a most desirable variety to grow. (Award of merit, Royal Horticultural Society, July 17, 1900.)

N. William Stone.—Like the preceding, this is a hybrid, and of American origin. It has the same features, so far as I have been able to judge from one season's trial, as *N. pulcherrima*. The flowers are of a darker shade, being suffused with purple, whilst the colouring of the anthers is more marked and of a darker tint—golden yellow. It is equally as floriferous and possibly more sweetly scented. As grown at Gunnersbury it is extremely vigorous. (First-class certificate, Royal Horticultural Society, May 28, 1902.)

N. zanzibarensis has not proved so satisfactory with us, possibly it requires more heat. In colour it is of the richest possible blue, but the flowers were sparingly produced, and its constitution not first-rate.

N. scutifolia and *N. capensis* (so-called) are merely varietal forms of *N. stellata*, so far at least as I have been able to form an opinion.

N. gigantea Hudsoni.—Since writing the foregoing description of *N. gigantea* I have been successful in raising from seed a decidedly improved form. It is a true *N. gigantea*, but of finer proportions and more robust habit. The flowers are larger, often measuring up to 10½ inches in diameter; the petals are broader and more massive, whilst the stems of the flowers are very much stouter, so much so that the flowers are borne erect as compared with the type. The colour, too, is of a deeper tint of blue. It received a first-class certificate on July 21, 1903.

JAMES HUDSON, V.M.H.

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THE FLOWER GARDEN.

AN HOUR WITH THE HOLLYHOCK.

(Continued from page 341.)

WHILE paying proper attention to young plants from which we expect the finest blooms, we must not forget to administer to the wants of those which have gladdened us with their blossoms during the preceding year. The ground, especially if there have been many visitors, will be trodden firm, and should be well broken up with a fork early in March. A good dressing of manure should be worked in during this operation. The Hollyhock is not a flower that will long lie dormant beneath the influence of the sunny days of spring. Soon the flower-stems begin to rise, and often so numerous that it is desirable to remove some. This should be done so soon as they are sufficiently formed to enable one to judge which will be the strongest. Allow no plant to develop more than three spikes, some two only, and a weak plant one. In all cases where growing for exhibition a single spike is

sufficient, the object then is to obtain as fine a development as possible; but when growing to produce effect in the garden, the object is more thoroughly obtained by the dwarfier growth and greater body of colour produced by three or more spikes. To those lovers of flowers who object to the Hollyhock on account of the height to which the flower-stems rise we would suggest a remedy. Instead of one, two, or three spikes, encourage four, five, or even six to rise, and when they have reached an approved height cut their tops off, and the habit of the plant will be entirely altered. If one spike is fixed in the centre and left taller than those which surround it the effect is highly pleasing. Beyond this there are many varieties naturally of a dwarf and bushy habit. The most of the leading modern kinds commence the formation of flower-buds at about 2 feet from the ground. If the situation be at all exposed the spikes must be tied to stakes at an early period, the first tie may be advantageously made at the height of about 15 inches. At this period of growth the wood of the stem is soft, and the tie should be made with a broad band of bast not twisted, and so made that it will slip up the stake as the stem rises. As the stem cannot be drawn close to the stake without injuring the flowers, two stakes will be necessary where one stem only rises from the plant. The stakes should be placed opposite, and the stem brought between them, so that the three objects form a straight line; pass the bast round the stem of the plant, drawing it to the one stake, and perform the same operation a few inches higher up, tying in the opposite direction, and so on, tying to each stake alternately as the stem rises. When two or three stems rise from one plant three stakes will be necessary, and they should be placed triangularly, tying as before.

It is a peculiarity of the modern kinds to produce the flowers so close together on the stem that some must be removed or the whole become crowded, and press each other out of shape. It is, therefore, a good plan to remove a portion as early as possible after the formation of the flower-buds; the nourishment which the supernumerary ones would have absorbed is then directed to the development of those which remain, and they grow to a larger size. A pair of long narrow-pointed scissors is an excellent instrument for this purpose, cutting the buds away close to the stem. Once looking over is scarcely sufficient; this branch of culture will require close and repeated attention during the rising of the flower-stem. In some instances, one-half of the buds require to be removed.

It is customary with some, and necessary where cultivating for exhibition, to shorten the spike by cutting off the top when it arrives at a certain height. This, again, increases the size of the flowers, but shortens the duration of the blooming season. Hence, we should recommend this practice only when large flowers is the chief aim of the cultivator, when from the habit of the variety or the richness of the soil there are signs of a too gigantic growth, or when, as before stated, the natural habit is considered objectionable.

Thus we have briefly passed under review the various practices of culture from the period of placing the cutting or seedling in the ground to the commencement of flowering. Hitherto all has been labour; not dull, uniform, or uninteresting, it is true, but cheerful, health-giving, varied, and amusing. Our operations have not been carried on in the unhealthy atmosphere of the laboratory, nor amid the discordant sounds of the mechanics' workshop. We have breathed unintermittently the free

* This Lily is the first to flower with us, and it is also open with the latest.

† Its flowers are not supported upon such stout foot-stalks, but partake more of a prostrate character, being usually about 6 inches or so clear of the water.



CLEMATIS MONTANA AGAINST A STONE WALL.

fresh air, the blue vault of heaven alone our canopy, our accompaniments the chirp of insects and the song of birds. Already, then, have we reaped some reward; and such are the charms encircling floricultural pursuits that even our manual labour, decoyed by hope, is ever pleasantly and insensibly impelled.

The winter season is, perhaps, the least interesting; there is then little to do, although that little is not unimportant; our joys are those of anticipation, and reflection tells us that rest is necessary to ensure a vigorous growth and perfect development of flowers. In spring all is activity; our hopes rise with the growth of the plant, and by its blossoming are our expectations realised. And hope clingeth even around decay. We know that the flowers must fade ere the harvest can be secured, and to that end are we looking for the continuation of our stock and the rearing of flowers more distinguished for beauty. And this is one of a class of recreations that is obtaining so great a hold on the affections of our countrymen—a recreation which is made to fill agreeably the hours of relaxation and to adorn the dwellings which they love. Other countries may surpass us in *the mere love of flowers*, but gardening, considered as an art, is essentially an English recreation. It accords thoroughly with the quiet, contemplative character, domestic habits, and religious nature of an Englishman. And surely it is a source of gradulation to find the love of gardening, with its moralising and refining tendencies, spreading in every conceivable direction.

W. PAUL, F.L.S.

(To be continued.)

CLEMATIS MONTANA.

THE beauty of this rampant-growing Clematis when in flower is well shown by the accompanying illustration. For covering arbours, summer-houses, porches, fences, &c., *C. montana* is a capital plant. It flowers in May and June, and bears an abundance of ivory-white blossoms 2 inches in diameter. It is of very

vigorous growth, and best adapted for planting where it can be allowed plenty of room to extend.

NOTES FROM A SMALL GARDEN IN NORTH WALES.

ANNUALS IN A WET YEAR.

LOOKING back on the past summer, which was hardly worthy of the name here, it was so wet and sunless, I think that the most successful plants were those grown as annuals. I try to have a few different ones each year, and so to become acquainted with the more uncommon sorts. Perhaps a description of those that gave us pleasure may interest some of your readers. Two that succeeded very well in the rock garden were *Sedum cœruleum* and *Grammanthes gentianoides*.

SEDUM CÆRULEUM is the better known, and I have grown it for some years. It is a beautiful little Stonecrop, with tiny, pale blue flowers. It is not particular as to soil or situation, wet or dry weather. It grows about 4 inches high, and is covered with flowers all the summer till the frost cuts it down. As the season advances its leaves and stems become reddish brown, and contrast pleasingly with its flowers. It would be a good plant for the top of an old wall.

GRAMMANTHES GENTIANOIDES was recommended to me as a very good plant for a dry, sunny place in the rock garden. It was sown in little pots in a frame and turned out at bedding-out time, three or four pots together in patches on a sunny bank. My rock garden was only made last autumn, and had many bare patches this season, so these little annuals were very useful, besides being exceedingly ornamental.

When the *Grammanthes* were planted out they were about 2 inches high, and had quite filled the pots. The leaves were fleshy, greyish green, and spotted with brown. Very soon the plants were covered with large, pointed buds. I expected the flowers to be blue, but *gentianoides* evidently refers to their shape. One warm day I found each patch a blaze of colour, the showy, fine-pointed flowers varying in colour from lemon-yellow to deepest orange-red, and so numerous that they almost hid the leaves. I never imagined anything more beautiful, and everyone who saw them was delighted with them, and asked what they were. I wonder that they are not better known. I

expected to find them open every sunny day, but found that it depended on the temperature. They were closed on sunny days with cold wind, and open on warm days even without sunshine. Another beautiful plant we grew this summer was

DIASCIA BARBERÆ.—It is described in the seed list as a "pretty new annual from the Cape, flowers chamois rose." I saw it first last year, and admired it very much. It is a neat little plant, about 6 inches high, with small, bright green leaves and rather large flowers in shades of salmon-pink. The flowers are curious in shape, having two short spurs. It has a long flowering season, and I doubt its being a true annual, as now (November 26), it is not dying down but making fresh underground shoots. I am having a plant potted up and placed in the cool greenhouse.

COLLOMIA COCCINEA is another annual that I first saw last summer in a friend's garden. There it had showy heads of rose-red flowers, something like a small *Verbena*, only taller. This year it was not satisfactory, only one or two of the tiny flowers being out at a time. Probably the wet season did not suit it.

ASTER NANSHANICUS, a pretty annual blue-mauve *Michaelmas Daisy*, about 1 foot high, was advertised as a novelty last year. It seems very satisfactory, showy, and easy to grow. I saved a lot of seed, and it germinated freely, and the plants flowered equally well this season. I still think the

ROSY STOCK-FLOWERED LARKSPUR the best annual grown. It is of the tall, branching sort, and was particularly fine this season. Its colour is beautiful, it is very graceful for cutting, and lasts wonderfully in water. There is a very fine dark blue one of the same sort.

LARKSPUR BLUE BUTTERFLY is a lovely dwarf kind, which can be grown as an annual. It has large, brilliant blue flowers, exactly the shape of a butterfly, with a brown spot on each petal. It grows about 1 foot high. On this light soil it comes up strongly the second year, and can be increased easily by division. It is rather difficult to obtain the right thing when ordering this. I got a very inferior, coarse-growing sort this year, apparently an annual. E. LLOYD EDWARDS.

AN ARTIST'S NOTE-BOOK.

THE STRAWBERRY-RASPBERRY.

BY several recent references to this plant in *THE GARDEN* it is probable that the popular and erroneous belief that it is a hybrid between the Strawberry and the Raspberry (as its name would naturally lead one to suppose) has been dispelled. It is not a hybrid, but is a species of *Rubus*, as has already been stated. The reason of its being called Strawberry-Raspberry is no doubt because of a certain resemblance of the fruits to those whose name it bears; it is, however, most unfortunate, particularly as recently it has been the custom in naming bi-generic hybrids to form the new name from each of the two parent genera.

In dispelling the erroneous notion as to the popular name of this plant, however, your correspondents have possibly made a still graver mistake, at any rate they have served still further to wrap in mystery the identity and origin of the Strawberry-Raspberry.

On page 275 occurs the following note: "Fruits of the Strawberry-Raspberry (*Rubus rosæfolius*) were exhibited. . . . This is a very pretty fruit, but of poor flavour. It is not, as its name would imply, a hybrid between the

Strawberry and the Raspberry, but it is a *Rubus* species, whose fruit bears a resemblance to the Strawberry."

Again, on page 312, under the title of *Rubus rosaeifolius*, a note from "T." says: "Under the name of Strawberry - Raspberry much mystery has at times been connected with this plant, but it is not by any means a hybrid between these two fruits. It is simply an old and well-known species of *Rubus*, which, according to the *Botanical Magazine*, is a native of the Himalayas, Burma, and Java. The fruits, which are much like those of the Raspberry, but of a bright red colour, are sold in some of the West Indian Islands under the name of Framboisier." These statements appear to be recognised as correct. They have not been disputed, and, moreover, we have heard the same facts stated by an authority on the subject of obscure fruits.

In *American Gardening* for the 7th ult. there appears an article from the pen of Alfred Rehder, entitled "The Truth about the Strawberry-Raspberry," wherein the writer claims that the true name of this plant is *Rubus ille-*

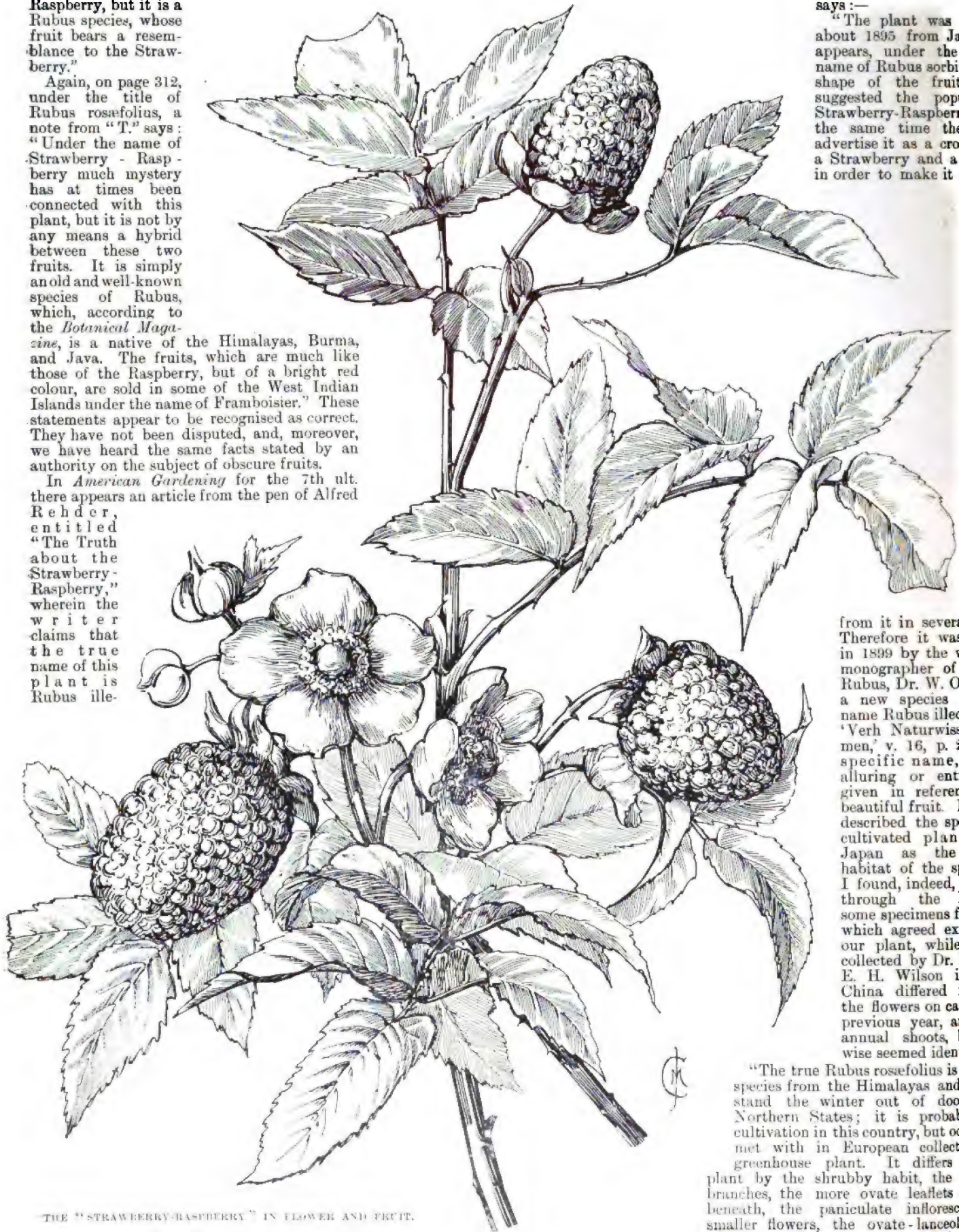
cebrosus. This is what he says:—

"The plant was introduced about 1895 from Japan, as it appears, under the erroneous name of *Rubus sorbifolius*. The shape of the fruit probably suggested the popular name Strawberry-Raspberry, and at the same time the idea to advertise it as a cross between a Strawberry and a Raspberry in order to make it sell better,

and I suppose the advertisers gained their end by this fantastic statement. Botanically it has usually been referred by American writers to *Rubus rosaeifolius*, the Indian Raspberry, which, however, seems to differ

from it in several respects. Therefore it was described in 1899 by the well-known monographer of the genus *Rubus*, Dr. W. O. Focke, as a new species under the name *Rubus illecebrosus* (in 'Verh. Naturwiss. Ver. Bremen,' v. 16, p. 278). The specific name, meaning alluring or enticing, was given in reference to the beautiful fruit. Focke, who described the species from cultivated plants, gives Japan as the probable habitat of the species, and I found, indeed, in looking through the herbarium, some specimens from Japan which agreed exactly with our plant, while a *Rubus* collected by Dr. Henry and E. H. Wilson in Central China differed in having the flowers on canes of the previous year, and not on annual shoots, but otherwise seemed identical.

"The true *Rubus rosaeifolius* is a shrubby species from the Himalayas and does not stand the winter out of doors in the Northern States; it is probably not in cultivation in this country, but occasionally met with in European collections as a greenhouse plant. It differs from our plant by the shrubby habit, the pubescent branches, the more ovate leaflets pubescent beneath, the paniculate inflorescence, the smaller flowers, the ovate-lanceolate calyx lobes gradually narrowed toward the apex and



THE "STRAWBERRY-RASPBERRY" IN FLOWER AND FRUIT.

From a drawing (natural size) by Miss I. M. Charters.

the more elongated thimble-shaped fruit. *Rubus illecebrosus* can hardly be called a true Raspberry, as the core portion (torus) does not persist on the stalk as a conical body after the fruit has fallen off, as in the true Raspberries, but breaks off and leaves only the base of the torus on the stalk; neither does it seem to be a true Blackberry.

In the last edition of the "American Fruit Culturist," by John J. Thomas (edited and revised by M. H. S. Wood), the Strawberry-Raspberry is again given as *Rubus rosæfolius*, a native of the Himalayas. Thus, so far as numerical support goes, *Rubus rosæfolius* has the greater claim to the popular name of Strawberry-Raspberry. If any of your readers can support the remarks by Mr. Alfred Rehder it would be of great interest to hear from them, so that we may arrive at a definite and correct conclusion as to which species of *Rubus* this plant really is.

Conflicting as the statements are with regard to its identity, all seem to agree as to its comparatively small value, if not utter worthlessness as an edible fruit. The "Fruit Culturist" says: "The berries resemble an enormous Raspberry, from 1 inch to 1½ inches in diameter. It is utterly worthless to eat, but the berry is so beautiful that it is well worth cultivating for table decoration."

Mr. Rehder's opinion is rather better. He says: "By some it has been denounced as 'an absolutely and altogether worthless fruit,' while others have lauded its excellent flavour when cooked, and have found even the fresh fruit agreeable. Though the fruit is rather insipid when raw, I cannot find it disagreeable, and as it has a pleasant flavour when made into jam or preserves, it can hardly be called absolutely worthless."

The chief value of the Strawberry-Raspberry in this country undoubtedly lies in its decorative value, and as an ornamental plant it deserves to be welcomed; the bright red fruits and the deep green foliage make a very striking picture, and it should form a beautiful specimen plant on a lawn, or add variety and brightness to the shrubbery. It has another value for the gardener, in that the fruit-laden shoots do splendidly for table decoration; the red fruits and rich green leaves prove most effective. The Strawberry-Raspberry is hardy, and Mr. Rehder says that it grows like a weed when once established. It spreads rapidly, and is difficult to eradicate on account of its suckers. It is not fastidious as to soil, and apparently is a good plant for covering banks and waste places. Mr. Potten, the Cranbrook Nurseries, Kent, has perhaps done more than any one in this country in endeavouring to bring the Strawberry-Raspberry into prominence as an ornamental plant. A. P. H.

ILEX CRENATA.

ILEX CRENATA is so distinct from all other Hollies that it is frequently not recognised as belonging to the genus. The leaves are smaller than those of the common Box, without spines, but with crenated edges, and are very dark green in colour. It bears myriads of tiny blossoms, but I have never yet seen a berried form of the plant. Its habit is that of a dense spreading bush, that cannot by any manipulation be grown to one leading stem, but a glance at a good plant will show that in its way it develops into a shapely specimen, suitable either for growing singly on the lawn or for use as a frontage to a shrubbery. It has been described as "a pretty species for dwarf bedding," but the specimen at Shipley is at least 8 feet high and over 12 feet in diameter.

Judging from this plant and others that have been grown here, there is no reason why it should not double its present size. There is a form of *I. crenata* in which the leaves are more or less splashed with yellow, but in this case variegation seems to be wedded to a stubborn habit of growth, and those specimens which really grow away freely go back to the green type.

J. C. TALLACK.

THE ROSE GARDEN.

POLYANTHA ROSES.

PROBABLY there is no class of Roses worthy of greater attention than the dwarf-growing Polyanthas; yet in how many gardens does one see them? Their lovely clusters of miniature flowers are quite enchanting, and on account of their dwarf-growing habit they make excellent borders and edgings, while for beds—where daintiness of individual flowers and masses of colour are required—they are unequalled.

They are truly perpetual flowering, coming into bloom the beginning of June and continuing without a break into November. They are fairly hardy and quite easy to grow. When pruning, where very dwarf bushes are required, it is only necessary to thin out the useless wood and cut back the strong growths. If the plants are allowed to go unchecked they will quickly make bushes about

18 inches or 2 feet high, which will be covered with flowers during the season. They also make very pretty specimen plants when grown in pots for the conservatory. Some of the best varieties are:

Cecile Brunner.—Bright rose, with yellowish centre; very pretty and interesting.

Etoile d'Or.—Pale chrome yellow, changing to light sulphur as the flowers expand; very sweet.

Perle d'Or.—Nankeen yellow, with orange centre; small perfect flowers, perhaps the best. I have seen this very beautiful as a half-standard.

The above make very pretty sprays and button-holes.

Gloire des Polyanthas.—Bright rose with white centre, neatly-formed round flowers; very free.

Paquerette.—Pure white flowers, produced in panicles; very small and double.

Liliput.—Bright cerise-carmine. This has very pretty rosette-shaped flowers and is very free.

Perle des Rouges.—A deep, velvety crimson, small and double, very free flowering. I think this is the deepest and richest colour of all the Polyanthas, and makes an ideal border.

Mosella.—White, with ground, slightly yellow shaded; it has pretty Camellia-shaped flowers.

Anne Marie de Montravel.—Pure white, very small flowers, produced in extraordinary quantity; sweetly scented.

Leonie Lamesch.—Coppery red, shaded with a mixture of yellow, very pretty, not very free flowering. The above are all splendid for borders or massing.

Mme. E. A. Nolte.—Lovely chamois yellow and white, changing to pure white as the flowers



ILEX CRENATA IN THE GARDENS OF SHIPLEY HALL, DERBY. (Height 8 feet, diameter 12 feet).

expand, rather large but very free. It is always the first Rose to flower here, and grows very strongly; would make a lovely bedding variety. It is greatly admired.

In the foregoing I have only enumerated those that grow well here and are not protected at all in winter. There are others I have seen very pretty, such as Georges Pernet, Marie Favie, and Golden Fairy, but I have not tried them.

Enfield.

COURTNEY PAGE.

ROSE GENERAL BARON BERGE.

THIS Rose has escaped the notice of the majority of growers, and yet it is one of the freest flowering of the true Hybrid Perpetuals. In November quite respectable flowers could be cut, and though this is not especially remarkable, for there has been a glorious display lately, it is nevertheless a valuable trait. There seems to me to be a touch of the Hybrid Tea about this variety, probably one of M. Pernet's earliest efforts in crossing. Were it not for the tendency to mildew in the autumn General Baron Berge would be exceedingly valuable, but it is not always so, and I have seen the Rose at times quite free from fungus. P.

THE FRUIT GARDEN.

TOO MANY VARIETIES OF APPLES.

WITH such a vast number of varieties of Apples—and they are being added to annually—it is most difficult for the amateur to decide which to plant and which to avoid; and while acknowledging that varieties which succeed admirably in one place are sometimes failures in others, there are certain varieties that are either not worth growing, or are so long in commencing to crop freely that, in these days when quick returns are desired, only disappointment would follow from planting them. In mentioning the following, we only give our individual experience in different parts of the country, trusting that it may induce intending planters to be careful how they select their varieties before ordering their trees. Take, for instance, that immense Apple Belle Dubois (syn. Gloria Mundi): seeing it on the exhibition table, many are tempted to order trees; but we never saw a heavy crop on the trees yet, and on heavy or light soils our experience is that no variety is more prone to canker. Another very showy and striking Apple is Bietigheimer Red, and for exhibition it is no doubt a telling dish in a collection, but we have always found it one of the lightest bearers. The well-known Cellini Pippin is a most excellent bearer and of good quality on warm and deep well-drained soils; but on thin or cold soils it cankers badly, and the fruits are prone to become spotted, and rot on the trees before they are ripe. Another excellent variety, viz., Blenheim Orange, requires a good deep warm soil, and plenty of patience, to get heavy crops; probably no Apple is longer in coming into bearing or gives better results when bearing does begin, but for the amateur it is often most disappointing. Sometimes we hear it said that Cornish Gilliflower is superior in flavour to Cox's Orange Pippin, but though it may rival it, it so seldom bears even a moderate crop that it can scarcely be said to pay for its room. New Hawthornden is a very fine-looking Apple, and the tree is a good grower and very free bearer, but our experience of it is that it is one of the worst cooking varieties grown, neither baking nor boiling well; in fact, in some seasons, it is so tough that it cannot be cooked at all. Round Winter Nonsuch is occasionally recommended as a useful long-keeping Apple to plant; but, having grown it as bush, pyramid, and standard, it has always proved a remarkably shy bearer. Mère de Ménéage and Striped Beefing are only suitable for planting as standard trees, and then they are a long time in getting into a free-cropping condition. When planted as dwarf trees, they have to be continually root-pruned to procure a crop. Many other varieties could be named more or less unsatisfactory,

and it would be a great boon to nurserymen, market growers, and amateur and professional gardeners if the catalogues of Apples could be reduced to moderate dimensions; not only should we have heavier crops of finer quality, but barren or comparatively useless trees in our gardens and orchards would not be so conspicuous.—*Journal of the Royal Horticultural Society.*

THE STRAWBERRY GRAPE.

I AM at a loss to understand why this Grape is not more grown in this country. I suppose the reason is on account of its size; the bunch is small, but the berry is not insignificant. This Grape is quite distinct from others in every way. The flavour is very rich, and the aroma which is given off by the berries when quite ripe is very refreshing and uncommon. If Grapes are to be grown for size, and not for quality, then this Grape is useless. I consider the flavour of the Strawberry Grape far superior to many sorts, as Barbarossa, Trebbiano, Syrian, Black Prince, and many others, which are useless except for exhibition and appearance, which is not the main point in fruit. I say, quality first, size second. The best way to meet with success in the cultivation of this Grape is to grow it on the extension system, when the berries will be as large as small Hamburgs. It is of no use for keeping purposes. I believe this Grape will receive more attention in the future, and deserves wide cultivation, if only for the novelty of its flavour, which is most uncommon and rich.

J. S. HIGGINS.

The Gardens, Rdg Corwen, North Wales.

NOTES ON HARDY PLANTS

CELMISIA MUNROI.

I PURCHASED this plant at the Temple show two years ago. As it does not appear to be well known, it may interest some to know that it seems perfectly hardy here, having had no protection during the two winters, although it was in a very exposed border. I had to move it last autumn while doing some alterations, but it did not resent it, and had four beautiful, large, pure white, Daisy-like flowers, about 2 inches in diameter, on long scaly stalks early this summer. They lasted a long while. The leaves are rather like those of the Yucca in shape, but not in texture, dark green and ribbed, and very white underneath. It is at present only about a foot high, and is making side growths. It is a very interesting plant, and is noticed immediately, as it is so different from its companions in the herbaceous border. I have only seen it once, besides the plant in Messrs. Veitch's collection at the Temple show, and that was a little specimen in a pot in the alpine house at Kew.

North Wales.

E. LLOYD EDWARDS.

SENECIO ADONIDIFOLIUS (SYN. ARTEMISIAEFOLIUS.)

MR. JENKINS' notes on some of the bolder Senecios (page 376) brings to mind the great usefulness in the hardy flower border of a lower-growing species. The "Kew Hand List" gives the specific name *artemisiefolius* as a synonym of *S. adonidifolius*. I believe it is better known in gardens by the former name, but it appears that under no name is it so well known as it deserves. In my own practice I find it indispensable in the flower border not far from the front edge. The leaves are dark green, close to the ground, and finely divided; they remain throughout the summer. The corymbs of bright deep yellow bloom are upon upright stems about 18 inches high. They are very showy; indeed, I know no plant of the time of year that does the same thing anything like so well. I make a practice of grouping it with the scarlet Monarda in a loose drift 6 feet or 7 feet long. It is a little shorter than Monarda, which here is not much over 2 feet, but where the Bergamot grows taller probably the Senecio would also be in proportion.

It seems to be very little known in English nurseries, but no doubt Mr. Froebel of Zurich would have it in plenty. G. J.

BOOKS.

A BEAUTIFUL TREE AND SHRUB BOOK.*

EARL ANNESLEY'S handsome work should stimulate interest in the more tender trees and plants for planting in gardens where the climate and position are similar to those enjoyed at beautiful Castlewellan, in County Down. The volume before us is the history of some famous trees and shrubs in this favoured spot, and many of them are superbly illustrated, though it is a mistake for the author to suppose that this is the only work "which gives representations of the trees and plants themselves," and it is also unkind to say that descriptions of new plants in gardening journals are unintelligible to the general public, who want a few facts clearly expressed and illustrations. In most gardening journals the reader gets both, and the accusation is unjust. Apart from these grumbles we have nothing but praise for the spirit which prompted the production of the book and the way it has been printed and illustrated. But it must not be accepted as a guide in the selection of trees and plants for all gardens in the British Isles. Many of the specimens described and illustrated are very tender, and would soon cease to exist in a park or woodland in the midlands and the north. Castlewellan has the climate of the south, and therefore gardeners in Cornwall, Devonshire, and similar counties may gather much from this book that will help them in their choice of beautiful trees and plants for their estates. We wish the author in his preface instead of abusing horticultural journals had warned his readers that the things he names must not be planted without forethought, and that the evil of planting conifers extravagantly in the past is seen in many an English woodland to-day. Decrepit Chili Pines, ugly Wellingtonias, and stunted Cupressus are the relics of the conifer craze when the trees were planted in ignorance of their requirements. When a second edition is called for, we hope the author will draw attention to the matter we have referred to.

The book is full of interesting facts, and the illustrations are pictorially delightful and very helpful. Among the rarer trees and shrubs depicted are *Lomatia pinnatifolia*, the sacred "Bamboo" of the Japanese (*Nandina domestica*), *Stephanandra flexuosa*, *Plagianthus betulinus*, *P. Lyallii*, *Pittosporum Mayii*, *P. Colensoi*, *Glyptostrobus heterophyllus* (*Taxodium heterophyllum*), *Abies bracteata*, *Eucryphia pinnatifolia*, *Dacrydium Franklinii*, *Picea pungens*, *Kosteri*, *Brachyglottis repanda*, *Rhododendron arboreum* (30 feet high and 130 feet in circumference), *Liarcopsis Kämpferi*, *Picea polita*, *Daphniphyllum glaucescens* (a beautiful shrub), *Pinus Montezumae*, *Cupressus macrocarpa* var. *lutea*, *Idesia polycarpa*, *Fitzroya patagonica*, *Cercidiphyllum japonicum*, *Fagus cliffortioides*, *Podocarpus Andina*, and *Prumnopitys elegans*. Two of the most beautiful illustrations in the book are of *Vitis Thunbergii* and the Poison Ivy (*Rhus Toxicodendron*).

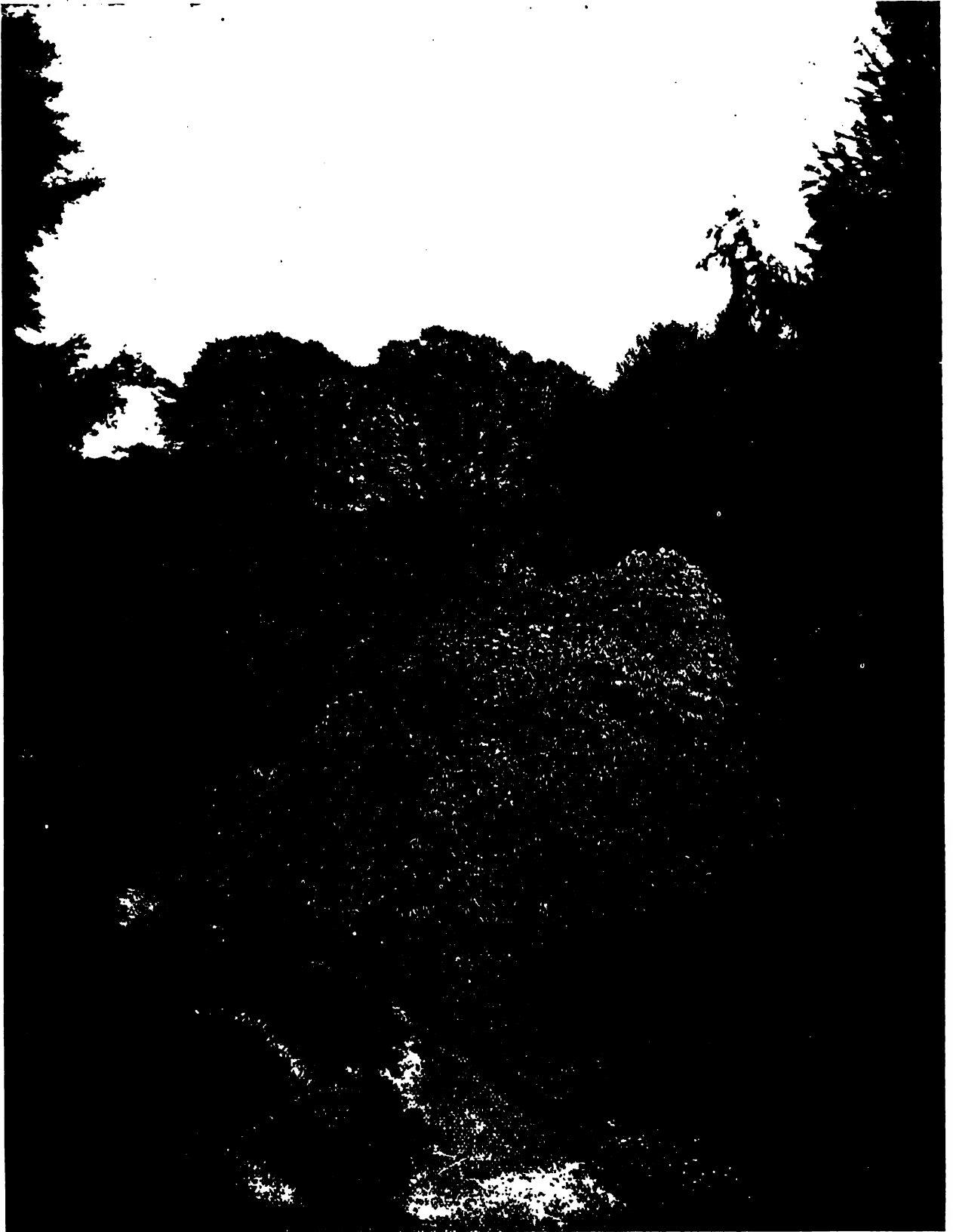
We are glad the author has described and illustrated this beautiful but dangerous

* "Beautiful and Rare Trees and Plants." By the Earl Annesley. Published at the offices of *Country Life*, Tavistock Street, Covent Garden, London; and by George Newnes, Limited, Southampton Street, Strand, London.

Rhus. His notes are of much value, and we reproduce them. "A very beautiful climbing plant, rather like *Ampelopsis tricuspidata*, but smaller and more delicate in the foliage, which turns to a reddish yellow in the autumn." Professor Sargent says: "It is one of the common plants in all the central parts of Hondo and Yezo, where it grows to its largest size and climbs into the tops of the tallest trees. From my experience it is so exceedingly dangerous and poisonous that I doubt whether it should be allowed in any garden, at least where ladies and children can have access to it. After touching the leaves, in a short time the victim becomes aware of an irritation in the eyelids, which rapidly increases until it is almost intolerable; they become so swollen that they are almost closed, the rest of the face becomes gradually involved, the eruption and swelling always moving from the forehead downwards. Blisters form upon the surface and weep copiously like those of eczema; the glands of the neck become enlarged, and there is much difficulty in eating or even speaking. Last autumn we had the usual harvest service in the church here, and the ladies and children helped to decorate it. Unfortunately, they chose the poison ivy, from the beauty of its colouring, to adorn the pulpit: one after another they became ill, some more and some less. The German governess was confined to her bed for more than a week, and suffered horribly. One lady consulted a specialist for skin disease and was sent to Harrogate for three weeks for blood poisoning. I was seriously alarmed about it, when one day three of the under-gardeners were laid up

with it, though very slightly. That settled the matter; it was *Rhus Toxicodendron*, and not blood poisoning at all! I heard a story of a lady living in the country who suffered every autumn from eczema and blood poisoning; so bad was it that her

husband thought the house was unhealthy, and decided to leave it and take another: however, his wife was so fond of a very fine plant of *Rhus* which they had in the garden that she had it moved to the new house, and it was not till some time after that she discovered that it was the



RHODODENDRON ARBOREUM AT CASTLEWELLAN. (From "Beautiful and Rare Trees and Plants.")

cause of her illness. It is curious that some people are not affected by it at all; but for those that are, the disease it produces is so terribly painful that the plant should be most carefully avoided. The only one in my garden that people could easily get access to, I have had taken up and burnt. Mrs. Tweedie in her travels in Mexico mentions that she was confined to her bed for fifteen days from poison ivy. She says: 'The parasite grows generally in shady damp barrancas; it is most poisonous when in bloom; then the pollen flies, and you may be poisoned without touching the plant. The Indians live in constant dread of approaching the creeper. The poison raises large lumps, red and swollen like bites, pus forms, and a kind of blood poisoning sets in, attended by much pain and even danger.' I think it will be useful to give all the other names by which this plant is known. They are as follows: *Ampelopsis Hoggii*, *A. japonica*, *Rhus ambigua*, *R. japonica*, *R. radicum*, *R. ternata*, *R. trifoliata*, *Toxicodendron pubescens*, *T. vulgare*."

There are seventy illustrations from photographs taken at Castlewellan, and a list of plants hardy in the garden. The collection of Pines and conifers is unusually fine, and a glance at the list shows that many weeks might be spent at Castlewellan with profit even by those learned in trees and shrubs. We congratulate Earl Annesley heartily upon his beautiful work, which is the outcome of a lecture delivered by the author before the Royal Horticultural Society last year. It is a delightful book, and we shall treasure it for its helpful notes and illustrations about the rarer trees and shrubs in a kindly climate.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

THE FLORIST CARNATION AND PICOTEE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Generically, but not specifically, my friend Mr. Douglas may be correct in stating that "there is really no difference between a *Carnation* and a *Picotee*, except in the colouring of the flowers." There is a difference everywhere! Both are cultured forms of *Dianthus Caryophyllus*, and the closest resemblance between the two types is in the foliage or "grass." But even here, the old florist, the man who knew his favourite plants as intimately as the mother knows her bairns, could mostly tell one sort from another in Carnations by the habit of growth, even from infancy as a "layer" in the little cradle of a pot wherein usually there are "twins."

What, then, would the old man have said to a grower who should tell him that "there is really no difference between a *Carnation* and a *Picotee*?" Of a truth, very ancient classic history is silent, for "Clio" knew nothing about Carnations! But if an exhibitor at our National Society's *Carnation* and *Picotee* shows were to set up a stand of twenty-four or twelve Carnations, with a *Picotee* among them, I fear he would find that he had done worse than nothing, i.e., had suffered extinction by disqualification. Briefly stated, the *Carnation* is

a striped flower, and the *Picotee* is an edged one. Is there "no difference" perceptible here? A flower in the "self," or one-coloured class, is either a "run" sport from the striped *Carnation* or from an edged *Picotee*, or else it is a self-coloured seedling, perhaps more frequently from the *Carnation* than from the *Picotee*. It is a matter of choice in which we are not entitled to a vote.

My old friend says, "No difference except in the colours of the flowers." Yet there is the rose edged *Picotee* and the rose flake *Carnation*; there is the scarlet edged *Picotee* and the scarlet flake *Carnation*; the purple edged *Picotee* and the purple flake *Carnation*. The "bizarre *Carnation*" classes, with their additional attribute of stripes in deep crimson to almost black-maroon, are probably beyond the depth of the deepest red edged *Picotee*, yet they maintain a colour connexion by virtue of their pink or scarlet stripes; in fact, the "pink and purple" bizarre *Carnation* exhibits the colour

time to time to my father (Dr. Horner of Hull), and, excepting two or three fair approaches, I have seen nothing like them since. Little doubt but that they could be got again. Presumably it is no further to the fountain now than Mr. Smith had found it, with so rich reward.

But on the principle that "no man should hoe his own Turnips," lest he be too lenient, and so eventually compass his own loss, so in all our classical florist flowers, the greatest strictness is the truest progress. Whether there be rise or fall in the old "florist" spirit, I am now perhaps not enough in the noisy world to know. But largely, in floriculture, the "main lines" seem "doubled," to carry the extra "goods traffic," i.e., of what will sell. Countless "sidings" and "platforms" to accommodate the passing fancies of a day wherein something fresh and new must ever come and go at special speed.

FRANCIS D. HORNER, V.M.H.

PLUMBAGO CAPENSIS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I enclose a photograph of my conservatory, in which the chief plant is *Plumbago capensis*. This is propagated easily by shoots from the base of the plant, and is admirably adapted for training upon rafters, pillars, or a bare space on a wall. The plant in question was grown in a very cool house, in a 10-inch pot, and reaches a height of 5 feet. The only artificial heat obtainable is from a small oil stove. I keep the plant very dry all the winter, and when the danger of frost is over I prune back hard, and give it a good top-dressing of rich soil, with copious supplies of weak manure-water; and later I get a good supply of bloom, which I consider very suitable for table decoration or sprays.

W. R. ARKELL

Hackney Downs Station (G.E.R.).

COLOUR SCHEMES IN MIXED BORDERS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In reference to Mr. S. G. Reid's interesting account, on page 375 of *THE GARDEN*, of his colour arrangements, may I suggest *Heuchera sanguinea* for the edging of the red section. I do not see *Salvia patens* or *Gentiana acaulis* amongst the blue flowers.

W. T. HINDMARSH.

Alnbank, Alnwick.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was much interested in Captain S. G. Reid's letter, on page 375 of *THE GARDEN*, concerning colour effect in the herbaceous border, as I have just been arranging a border in different colours myself. I see Captain Reid asks for hints

in the shape of pink, rose, and red-coloured plants for placing in the foreground, and I venture to mention a few which I think would be suitable. To begin with *Dracocephalum speciosum* and various species of *Dianthus*, the latter in masses, would look pretty; also a large clump of *Phlox Vivid*, and another of *Oenothera eximia*. These plants would, of course, go in front of the pink section. Then for rose, a large patch of the charming little *Aubrietia Leichtlinii* would look well, and side by side with it *Sedum roseum* and *Ethionema grandiflorum*. As for red or crimson what could look better than a large group of Sweet Williams and a mass of *Dianthus Napoleon*? Then there are numerous forms of *Heucheras* in pink, rose, and red, which look lovely in large masses in the front of a border. There are also numerous sorts of *Pyrethrums* in the colour wanted. These are, of course, rather tall for the foreground, but would look well planted in groups just behind the



A SMALL GREENHOUSE NEAR LONDON: THE PRINCIPAL PLANT IN IT IS PLUMBAGO CAPENSIS.

of two *Picotee* classes at once upon every correctly marked petal it possesses. I submit that these colour coincidences, or parallels, are resemblances, beautiful touches of kinship, rather than the exceptional differences which my friend sees in them.

In classical faults of marking, as vexatiously demonstrated among seedlings, the *Picotee* is more given to trespass upon the prerogative of the *Carnation* than the converse. I have never known the *Carnation* add the edging of the *Picotee* round its petals; but the *Picotee* is audacious, piratical, and prone to produce weak "bars," or streaks and dots over a ground colour that ought to be spotlessly white or yellow.

I am old enough to remember the yellow ground *Picotees* raised by Mr. Richard Smith in Oxfordshire. He sent them from

plants mentioned. The difficulty, as Captain Reid says, is in the blue section, and there are too few blue flowers. I do not see that he mentions in his list such plants as *Eryngium planum* and *E. celestinum*, neither *Echinops Ritro*; these are all handsome border plants. There are numerous blue *Asters* (Michaelmas Daisies), which are very useful and pretty, and come into flower when most of the other things are over. EVELYN

GARDENING OF THE WEEK.

FRUIT GARDEN.

VINES.

BY this time the buds in the early house will be sufficiently forward to admit of a slight advance in the day temperature, but no alteration must be made by night until we have a change to more ordinary forcing weather. Follow up the daily syringing until the bunches are well advanced and all the buds are fairly on the move, but avoid constant saturation of the spurs at this dead season. If the inside borders have not been watered since the house was closed, another watering with diluted liquid manure at the maximum temperature of the house may be given, and the borders may be well mulched with fresh short horse manure, which will exhale ammonia when gleams of sunshine raise the temperature of the house.

OUTSIDE BORDERS

hitherto covered with Ferns, litter, sheets, or shutters may now advantageously receive a good covering of moderately dry fermenting leaves, which will set the surface roots in action and draw them into the autumn surfacing of turf and bones ready for the performance of their work when the stoning and colouring processes draw so heavily upon the Vines. Muscats, Alicantes, and other thin-skinned Grapes will now require cutting, as they will keep better in the Grape room than on the Vines. When the latter are pruned and cleansed, dress the cuts with styptic, and throw the ventilators open in suitable weather to give them a month's rest before growth is again excited. If the

INSIDE BORDERS

are not satisfactory immediately after the Grapes are cut is the time, and the only time, to get them put right. Years ago many people were afraid of disturbing the roots of Vines, but it is now well known that external or internal borders may be taken out alternately, and every particle of the old soil may be replaced with new, not only without endangering the succeeding crop, but with the certainty that it will be greatly improved. Lady Downes, Mrs. Pince, and that excellent Grape Black Morocco are keeping unusually well, but they had a liberal share of fire-heat early in the spring, and they will hang for any reasonable length of time without shrivelling. If the Vines are not already clear of foliage all the leaves will be ripe enough for removal, and the Grapes will be in a fit condition for cutting and bottling by the end of the month.

WHEN CUTTING GRAPES

for keeping always remove any doubtful berry, as the smallest spot is sure to end in decay. Choose a bright day for bottling; never cut away any of the wood beyond the bunch without applying styptic, and avoid disturbance of the berries in the removal of the bunches to the Grape room. Growers who have Grape Mrs. Pearson hanging in late houses will do well to give it a fair trial, as it promises to be a good keeping Grape, and the quality being so good it cannot be too soon or too well known that we have at last a worthy companion to the invaluable but often badly treated Lady Downes. WILLIAM CRUMP.

KITCHEN GARDEN.

CUCUMBERS.

WINTER fruiting plants must not be unduly urged at this dull period by the too free use of fire-

heat or the growth made will lack substance, and in all probability the plants would collapse when it does become necessary to use more fire-heat during spells of sharp wintry weather. Generally speaking, the structure utilised for this crop is a low-pitched one, and such a house can easily be covered at night with mats, or even Bracken, if fresh cut and clean. A night temperature of from 62° to 65° will be ample, rising to 70° or 73° in the day; top-dress with a thin layer of soil as often as the white roots appear upon the surface of the border. The compost should at this time be specially prepared by mixing equal parts loam, peat, and flaky leaf-soil with a little spent Mushroom-bed manure, bone-meal, and Clay's Fertilizer added. It is very essential that the water used at the roots and overhead be as near the temperature of the house as possible. Overhead syringing must be regulated according to the weather prevailing. Avoid as much as possible cutting either shoots or foliage or a check to the roots will result; admit the maximum amount of light by occasionally cleansing the roof glass outside. If the supply has to be maintained throughout January, February, and March it is a good plan to raise a batch of plants by sowing seed of an approved variety.

PEAS.

In establishments where very early Peas are required and convenience exists for growing them some seed may now be sown. That excellent variety Chelsea Gem is still one of the best for early work. Eight seeds should be sown in 3-inch pots three parts filled with soil; this should consist of equal parts leaf-soil, loam, and decayed manure, with some wood ashes and sand added. Place the pots in a house kept at 45° or 50°, and when the young plants are 1 inch high remove to a shelf in a cooler structure, where air can be admitted on fine days. When the pots are filled with roots repot into 6-inch pots and grow on gently, and when fit re-shift into a size larger pot or in boxes for fruiting. Over-watering must be avoided, and tepid water should be used.

ASPARAGUS BEDS.

If nothing has been done to these beyond cutting down the stems they must now receive attention. Remove all weeds by careful hoeing and raking off with a short-toothed wooden rake, then apply a good dressing of half-decayed manure from the farmyard. This will afford some protection to the crowns that are near the surface, and the nutritive properties will be carried down to their roots by rains, the remaining portion can be lightly forked in when the beds receive their spring dressing.

Stoneleigh Abbey Gardens.

H. T. MARTIN.

FLOWER GARDEN.

CUTTING DOWN HERBACEOUS PLANTS.

JUST now, when flower-beds and borders are receiving their general clear-up, many of the best of our hardy plants are stripped of their old leaves on the plea of tidiness, just at the period of the year when we might expect the most inclement weather. The stems of all herbaceous plants, reeds, and tall grasses look well, and should be allowed to stand through the winter and not be cut down for the mere sake of tidiness that is so common. There is no need to remove any stem of a herbaceous plant until the spring comes and the growing shoots are ready to take the place of the brown and dead ones, which may then be cleared away. The old drooping leaves of *Pæonies*, *Delphiniums*, *Iris*es, and a host of others not only look sere and weather-beaten, but they collect and hold all the loose leaves that are flying before the autumn gales, and together they form a very effectual screen against the winter's cold, and it should be remembered that where the leaves and stems are cut off the hollow stems let the rain down right into the heart of the plant, while the bending stem keeps the heart dry and therefore able to resist much more cold. I have no doubt but that many plants would prove hardy, if left alone, that now succumb to this treatment, and are the victims of misdirected zeal.

KNIPHOFIAS.

These, too, are somewhat tender, and very liable in wet, cold soil to suffer materially if left in such

a condition that winter rains may get to the hearts of each growth. It is advisable that the tops of each plant be gathered together, twisted spirally, and tied in such a position that the growth centres are protected by the leaves. As a further precaution, a mound of half-decayed leaves, wood ashes, or even coal ashes will prove an excellent protector.

PERNETTYAS.

A few clumps of these make a pleasing display when scattered here and there in pleasure grounds at a time when nearly all flowers are over. These plants seem to berry much more freely on some soils than others, and the state of the weather at the time of the expansion of the flowers is doubtless also an important factor towards a successful set, but where they do well they are most valuable during the winter months. If potted up they stand remarkably well in the dwelling-house, and after being utilised in this way may be planted out in the positions they are to occupy permanently. T. B. FIELD.

Ashwellthorpe Gardens, Norwich.

ORCHIDS.

HEATING THE HOUSES.

THIS should now have strict attention, for upon the proper regulating of the temperatures throughout the winter months the welfare of the plants largely depends. A too low temperature on the one hand is ruinous to the plants, while too much fire-heat is also injurious. Keep up the following temperatures at all times during winter, allowing a few degrees rise in mild weather: *Phalænopsis*, stove, warm, and *Cypripedium* houses, 70° by day, 65° by night; *Cattleyas*, 65° day, 60° night; Mexican houses, 65° day, 55° to 60° night; cool *Cypripedium* houses, 65° day, 55° to 60° night; cool intermediate houses, 65° day, 60° night; *Odontoglossum* houses, 60° day, 55° night.

DAMPING THE HOUSES.

Great care must be taken in the distribution of water to maintain the varying degrees of atmospheric moisture required by the various plants. If the atmosphere is kept too moist with the lower winter temperatures many plants may suffer, while a too dry and arid atmosphere causes the same to have a yellow and decidedly unhealthy appearance, and also favours the increase of insect pests. Beginners must therefore carefully consider the conditions of the weather, the nature of the plants, &c., and supply moisture accordingly. During spells of moist, mild weather, damping the houses once a day when the temperatures have risen to the desired degree, and again sprinkling the dry surfaces in the afternoon may suffice, while in bright, cold weather a thorough damping twice a day, with intermediate surface sprinklings, may be required properly to balance the atmospheric conditions and counteract the drying influence of the hot water pipes. With the moisture-loving plants, such as *Phalænopsis*, *Cypripediums*, *Odontoglossums*, &c., one had better err on the moist side, and *vice versa*, in houses containing *Cattleyas*, *Lælias*, deciduous *Dendrobies*, and other bulbous deciduous Orchids.

WATERING THE PLANTS.

There is no time of the year when the application of water to the plants requires more thought and care than in late autumn and winter, when a great number of plants are inactive. It is then the most critical period for beginners, as they generally have a difficulty in judging the exact requirements of the different genera and species in this respect, and knowing that the resting season is always termed the dry season they may in consequence be inclined to keep many plants far too dry. The *Cypripediums*, *Phalænopsis*, *Masdevallias*, and such like plants should be carefully examined every other day and see that none after becoming slightly dry are allowed to remain so. With the *Angræcums*, *Arides*, *Vandas*, *Saccolabiums*, &c. these should become properly dry and then be thoroughly watered. The *Cattleyas*, *Lælias*, *Oncidiums*, *Dendrobiums*, *Celogyns*, &c. should have sufficient only to maintain their bulbs in a plump condition, while the *Cyrtopodiums*, *Catacætus*, *Cynoches*, *Schomburgkias*, *Oncidium lanceanum*, *O. luridum*,

O. splendendum, and such like plants require little to keep them healthy. See that all bulbous plants when beginning to shrivel for want of water have a thorough soaking (not surface sprinklings) or they will continue to shrivel. *Lælia purpurata*, *L. tenebrosa*, *Cattleya lawrenceana*, hybrid *Cattleyas*, *Lælias*, *Sobralias*, *Cymbidiums*, *Odontoglossums*, and other plants still growing should be moderately watered throughout the winter.

AIRING.

A little air should be admitted to the warm houses if not windy and the outside temperature is not below 40°, and correspondingly more to the *Cattleya*, Mexican and cool intermediate houses, while the cool houses should always have a free circulation of air and never be entirely closed if the outside temperature is above freezing.

F. W. THURGOOD.

Roslyn Gardens, Stamford Hill, London, N.

INDOOR GARDEN.

PLANTS FOR FORCING.

ATTENTION must now be given to introducing at regular intervals batches of the various plants provided for forcing. It is a safe practice to place them in a cool, close house for a week or ten days previous to submitting them to heat. All bulbs on their removal from the plunging material must be gradually inured to light before being placed in the forcing house. This can safely be done by placing an inverted pot or box over them for a few days until the foliage assumes its natural green colour, afterwards the full light is beneficial to them. One important point in the forcing of plants and bulbs is that after they are once started they should not receive a check. Lily of the Valley is best forced in a somewhat subdued light, as the objection to pale green foliage does not apply to this plant.

RICHARDIA FLOWERS

for early work can be obtained with very little forcing from plants grown entirely in pots as previously advised. Select such plants as are already showing young flowers, and remove them into a house with a slightly higher temperature (40° to 45° by night), and as soon as they begin to move give them regular supplies of weak liquid manure. The aphid is generally very troublesome in the forcing of these flowers, and fumigation must be resorted to. *R. sancta* is a distinct and striking species. It is not so floriferous as *R. africana*, but flowers early, and would require but little forcing. Its large, dark brown flowers are very attractive. *Begonia Gloire de Lorraine* and the variety *Turnford Hall* are now very gay. Care should be taken to prolong their flowering season for some weeks by not submitting them to too much heat and moisture and avoiding overcrowding, also by growing a successional batch of plants.

THE HYBRID BEGONIAS,

known as Veitch's Winter-flowering, are worthy of attention by those who require a display of choice flowers during the winter months, one or two of which may be noted. *B. Agatha* and *B. A. compacta* may almost be considered as dwarf forms of *B. Gloire de Lorraine*, but each are quite gems in their way. Among the larger-flowered varieties of this section is *Julius*, a beautiful soft pink with double flowers, which last for weeks.

COLEUS THYRSOIDES.

Those who have grown this in an intermediate house with plenty of light and gave a little feeding as the pots became filled with roots will now be rewarded with a good display of flowers of a distinct character, and very serviceable for grouping at this season. It requires a liberal supply of moisture at the roots as the flowering period approaches as the foliage is liable to drop.

WINTER-FLOWERING CARNATIONS.

Remove all flowers as they lose their freshness so that no unnecessary tax may be imposed on the plants at this season. Tie up the flower-buds as they develop and before they open, which assists them to expand more evenly. Remove all objectionable foliage and thus give to the house

a clean and neat appearance. Remove all early-blooming varieties immediately the flowers are cut, and cut out all old flower-stalks and place the plants in a rather close house where the range of temperature will be from 55° to 60°. Where the plants can be syringed once or twice a day under this treatment cuttings will soon be procurable, which, as they reach 2½ inches or 3 inches in length, should be taken for propagating. It is important that the cuttings be entirely of young growth, or the percentage of failures will run high; therefore, avoid taking cuttings with a portion of old wood at their base at this season of the year. The best place for striking them in is a small case arranged over the hot-water pipes inside an ordinary growing or forcing house. The case should be 1½ feet to 2 feet wide, where a steady bottom heat of about 60° can be maintained, and must be covered with loose squares of glass inclining sharply to the front. Fill the case to within 6 inches of the glass with Coconut fibre refuse 6 inches or 8 inches deep, which must be kept quite wet or the heat will not rise through it. In a few days this should be warm enough. Three-inch or 4-inch pots are quite large enough, and the cuttings should be inserted round the side of the pots only.

J. JAGUES.

CHRYSANTHEMUMS.

NEW VARIETIES.

THE large and increasing number of new sorts annually introduced makes it exceedingly difficult to select the best, especially to those who do not have an opportunity of inspecting the flowers for themselves as they are brought before the public from time to time. I append a list of what I believe are among the very best seen this year, and I feel certain that many of them will prove great acquisitions at our shows in 1904. I have before urged beginners to purchase as many as possible of those varieties which are likely to be the very best, rather than one or, at the most, two of several for the sake of having a large number of varieties. Place your orders as early as possible, and have cuttings for choice, as by so doing one gets them early, and our Chrysanthemum growers are generally liberal-minded enough to give a few extra, which often means a great gain.

JAPANESE VARIETIES.

W. A. Ethrington.—A very large flower with long drooping petals, light pink in colour.

J. H. Silsbury.—Remarkably long florets which curl at the tips, colour light crimson. A fine variety.

Maude du Cross.—A charming creamy colour, and a very large flower, with long twisted florets. A great acquisition to this section.

Beauty of Leigh.—A very fine novelty, quite one of the best. The petals droop and curl pleasingly, and the colour is a rich golden.

Mrs. Guy Paget.—A pure white of immense size, florets 10 inches long.

Lady Cranston.—A fine flower and a sport from *Mrs. Barclay*. White, with a faint tinge of the colour of the parent.

Mrs. C. Beckett.—A very distinct white, with a slight tinge of green in the centre, florets long and twisted.

Mrs. A. H. Lewis.—A very distinct, fine flower, with long straight florets, rosy violet in colour. An acquisition.

Jean Calvat.—A fine incurved Japanese of great size, colour white flushed with carmine, yellow tips.

Mlle. Albertine Bertrand.—A very pleasing flower, white with mauve stripes.

Mrs. J. Dunn.—A very large white, florets long and drooping.

Brenda.—A fine reflexed Japanese, orange colour with a red flush.

Valerie Greenham.—A flower of medium size, with drooping petals which are pleasingly curled. The colour is a bright pink.

INCURVED VARIETIES.

Mr. Barnard Hankey.—Colour a peculiar bronzy shade, florets narrow, but the flower is of fine form.

Mrs. J. B. Bryce.—Pure white, of immense size, and with well-formed florets.

Miss Alice Dighton.—Splendid form and large, colour a rich yellow.

W. Pascoe.—Rosy lilac, the bloom well formed and deep.

Buttercup.—Broader florets than *Miss A. Dighton*, and a fine yellow.

E. BECKETT.
Aldenhams House Gardens, Elstree.

KITCHEN GARDEN.

EARLY PEAS IN FRAMES, POTS, AND BORDERS.

KITCHEN gardeners should now be thinking about the early crop of Peas for the spring supply, and much may be done to get good dishes in April or May by sowing under glass now. Much heat is not required, and another point of importance is to get new seed; the large seed firms will supply it if asked to do so, and for some years I have had it sent specially for pot culture. I have noticed three distinct methods of culture—frames, pots, and early borders, but glass is necessary at the start. Many growers sow in January, even towards the end of the month, for May and early June supplies; but to do this heat is used, which means that the plant gets greatly weakened at the start, so much so that a good yield is out of the question. Though glass protection is advisable, I do not, except in very extreme cases, use heat at any period of growth.

It may happen that many amateurs are unable to give glass protection for the early Pea crop, and even here I have seen excellent results by sowing in pots or boxes, and merely giving protection at the start or in severe weather. It is well known that for the first few weeks the seed may be grown in the dark, and when covered over it is protected later on. I have protected with boards, boxes, or dry Bracken, and by so doing gained at least three weeks to a month over the plants sown in the open. The old system of growing in turf pits was a good one, as the plants in the daytime in mild weather got just the treatment required, viz., freedom from exposure, and only sheltered at night or in severe weather, whereas in glass houses or heated frames too much heat results in the puny haulm and scarcity of pods. I have frequently heard the remark that Peas grown under glass are unprofitable, but with this I do not agree. Much depends upon how the crop is grown, the variety, and attention given to details.

Few crops are more welcome in the garden than the early Pea one, and no matter what is grown, to get the best returns there must be labour and expense. For private use I think Peas obtained as early as possible are most valuable, as they come in when other choice vegetables are scarce. Some growers are in favour of sowing in a sheltered border at this season, but this can only be done in the most favoured parts of the kingdom, and even then there are frequently great losses after several months' growth.

POT CULTURE.

Much the same routine is required as for the others. With respect to the date of sowing, variety, and soils, some good growers sow in the fruiting pots, others in a small size, and later on transfer to the others. For several seasons I grew a large number of plants in 8-inch pots. These were placed in a Peach case at the front, and grown there for some time. It is surprising what good results follow when early Peas are grown in a cool house, and they give little trouble. There is an advantage in growing pot plants, as they can be shifted about if the room is required, but always avoid thick sowing, and thin early, so as to give the plants room to develop. The temperature for Peas at night should never be high, and the early treatment given the Peach just suits the plant. As more warmth is given it is well to remove the plants to cooler structures. Of course, if a house can be given entirely so much the better, as here they will do well with a temperature of

45° to 50° at the start, and 10° higher in three months' time. By sun heat allow the thermometer to run up freely, avoiding a dry arid atmosphere. Moisture and ample ventilation are essential.

FRAME CULTURE

is simple. The seeds may be sown in the frames or in small pots, and planted out two or three months later. The last-named plan is a gain to many, as the frames may not be at liberty till the date named, say in February, and if the seeds are not crowded, and a good size pot used, not smaller than 5-inch, the plants do well. There is also pit culture, that is, plants grown in heated pits, but I do not advise this plan, though there is a gain by having the frames heated, so that in very severe weather the plants may be kept at about 45°. If sown in the frames I would advise a good soil and

a little warmth and enough soil, and the plants being strong grew well. If sown now it is well to have the soil within 2 feet of the glass, and at night, if the frames are not heated, the glass should be covered. A few winters ago, in February and early March, we had, in addition to mats or covers, several inches of litter to keep out the frost, but that was an exceptional season, and our frames were not heated.

BORDERS.

I now come to the most important crop, viz., plants raised under glass and then transferred to a sheltered border as early in the season as the weather will allow; 5-inch or 6-inch pots may be used for the sowing at any time in December. Sow thinly, and for soil use a good loam as advised for frames, and if light pot firmly, placing the

pots when the seed is sown in cold frames, but kept close till the plants are well above the soil. At this dull period very little moisture will be needed. They give little trouble till planted out. Merely protect them in severe weather, and give ample ventilation on fine days. Planting out with us is usually done at the end of February or early in March, and no heat whatever is given, so that a sturdy growth is secured. A warm border at the foot of a wall is the place for the Peas. Give a little shelter at the start in the way of cut branches, as I find east winds do more harm than frost. Even water may be necessary in a dry spring, and this should be given liberally. At the planting the roots at the base should be opened out, but the upper portion of the ball is not broken. Plant in rather deep drills, as this is a protection at the start, and when moulding up a little later the plants benefit; it is also much easier to water when planted as advised, and pot plants soon dry. They should also be given support at an early date.

VARIETIES.

Ideal is well named; it is a splendid early variety, the pods are large, and it is even

earlier than the small dwarf Peas. Much the same remarks apply to May Queen, a fine pot, frame, or border Pea, and for flavour and productiveness it is one of the best. Though a little taller than Ideal, with me it is most valuable. Early Giant is also a splendid forcing variety; I know of none better, but this is taller, namely, 3 feet to 4 feet, but it is an easy matter to stop when 2 feet to 3 feet high; it gives a splendid pod, is far ahead of Duke of Albany, and it matures very early. If a dwarf Pea is liked, Sutton's Forcing and Veitch's Chelsea Gem are excellent. These require less space and give a good return. Last season I saw the new Edwin Beckett given pot culture as described, and it gave a grand crop. It is evidently of splendid quality and a free cropper. No note would be complete without referring to Carter's Daisy, a grand forcing variety, and one that has now stood the test for several years. Its

size, quality, and crop make it a great favourite for early supplies. There are others, but my list is quite long enough, though I have omitted some well worth naming, such as Gradus, Bountiful, and Early Morn.

Syon Gardens, Brentford.

G. WYTHES.

NOTES FROM THE MARKETS.

MESSRS. GREGORY AND EVANS OF SIDCUP.—This firm is well known in trade circles. It is chiefly renowned for Heath culture, and Messrs. Gregory are probably the largest growers in the trade. Yet, although Heaths are such an important feature, many other subjects are grown quite as well. Ferns of ordinary market sorts are grown in countless numbers also. Bouvardias and Poinsettias are a great speciality. This season they have an unusually fine stock. The plants are rather tall, but, being used chiefly for cutting, this is no disadvantage, and it might be difficult to get such fine heads of bracts on shorter plants. Referring to the Heaths again, upwards of 80,000 are grown on for flowering in 5-inch and 6-inch pots, the largest portion being *Erica hyemalis*. The earliest of these come in about the first week in October, and they usually keep up a succession until the end of January. *E. gracilis* is in flower early in September, and at the time of my visit (December 4) they still had some very good plants well flowered and bright in colour. The new white variety of this (*E. nivalis*) was rather past, but some young plants were still in flower. This will not be offered, I believe, until next autumn, but in the meantime a very large stock will be worked up, and it is anticipated that it will prove one of the most valuable market plants ever introduced. Of *E. melanthera*, some plants about 3 feet high were beautifully in flower; they were in 6-inch pots, and should find a ready sale, especially at Christmas-time. A large batch of smaller plants were not so forward, but were well set with bloom. The *E. Cavendishi* looked very promising for spring flowering.

In Ferns, *Pteris tremula* and *P. cretica major* are grown in the largest quantities, there being fully 20,000 of these in 6-inch pots at the time of my visit, some very fine stuff being reserved for the Christmas trade. *Cyrtomium falcatum* is grown nearly as extensively. *Phlebodium aureum*, *Pteris Wimsetti*, and *Asplenium biforme* fill several large houses. *Adiantum cuneatum* and *A. elegans* also receive considerable attention. In all the Ferns there is a regular succession coming on, from the tiny seedlings up to the large well-finished plants in 6-inch pots. Messrs. Gregory and Evans never miss a market when it is open, and there are few stands so well filled with useful material throughout the year.

I may add that in addition to what goes through the market a large trade is done direct from the nursery. I noticed when I called that a large number of boxes were packed ready for dispatch. The direct trade with the retailers is certainly on the increase, and many growers who would formerly have preferred sending to market now recognise the advantage of sending direct to the buyers.

Persian Cyclamens.—Well flowered plants are now coming into the market, but they are not over plentiful, and are among the few things for which there is a good demand. There are not many who grow Persian Cyclamens really well. In a chat with a grower who has long made them a speciality, I gathered that he has never experienced any difficulty with them, but he always adopts careful methods. It is well known that one of the chief causes of failure are the troublesome little thrips which cripple the flowers before they are developed. To prevent any possibility of this, the houses are thoroughly cleansed every year, the walls lime-washed, all the ground surface watered with weed killer (which is also destructive to all insects), and fumigated with the XL All Vapourising Fumigant. He is also careful to use nothing but fresh soil for potting. There are few plants which



PEA CARTER'S DAISY, FORCED IN A POT.

some food in the shape of bone-meal or fertiliser. In heavy soils give a liberal addition of wood ashes or old Mushroom-bed manure, and anything that will lighten and support the roots. Plants from seed sown in November, if the frames are kept close till the plants are well above the soil, should crop late in April or early in May, or even earlier if a little artificial heat is used in cold weather. The plants should be 18 inches between the rows. When a 2 feet or even taller Pea is sown the points of the plants should be taken out to promote a branching habit; they are dwarfier when grown under glass and given good culture. The soil at the time of sowing should be workable, not wet, or too dry, and if light make it firm, and it should be 9 inches to 1 foot in depth. I have got splendid results by planting out at the end of February on a bed that was made up in the late autumn of leaves and litter that had raised various seedlings. There was

are more certain of finding a ready sale than well grown Cyclamen, and they pay for a little extra attention.

Chrysanthemums.—It has been rather a bad season generally for growers. It is quite evident that the supplies have considerably exceeded the demand, even though the trade for these useful flowers has so considerably increased. The best trade appears to be for well finished blooms of medium size. Few of the very large blooms such as we see at exhibitions find their way into the market, but there are plenty of good fresh blooms of moderate proportions. These, packed in boxes of about four to six dozen blooms in each, seem to sell better than the bunches. One grower who had over 100 boxes told me he had nearly sold out; to be correct he had sold ninety-nine, and as he was then bargaining to sell two boxes he may have effected a clearance before leaving. White seemed to be more overdone than anything on Saturday, large quantities being seen on every side. Bronze, bright crimson and pink shades sell best. A. H.

SOCIETIES.

WOOLTON.

The fifth exhibition of this society was held on the 18th ult. in the Church Hall, and, like its predecessors, taxed the resources of the committee to arrange the exhibits and yet to leave space for the large numbers of visitors who favoured the show. The entries exceeded last year's by two, a falling off in the fruit, and a considerable gain in the other sections. As usual, every effort was made so that the exhibits were set out to the best advantage; the work in this direction in the past having gained many admirers, and this year's exhibition has added to the reputation as being one of the prettiest shows in this part of the country.

CUT BLOOMS.

The flowers throughout were fresh and of good form. For the premier class of twenty-four distinct Japanese (to the first prize is added the silver challenge cup), Mr. J. Stoney, gardener to F. H. Gossage, Esq., last year's winner, was first, and now claims the cup; the blooms were of good depth and fresh; Mr. T. Carling, a past winner, was second.

Eighteen Japanese, distinct: Mr. J. Clarke, gardener to T. Clarke, Esq., secured the leading award with a strong box. For twelve varieties Mr. J. Stoney had the best.

Eighteen incurves, distinct: Mr. J. Stoney again led with handsome blooms. Mr. J. Clarke was first for twelve varieties.

Twelve Japanese, distinct, shown with their foliage on a space 2½ feet by 2½ feet brought seven entries, and the various styles of setting up made an interesting display; Mr. Stoney was again to the fore, and upheld his position for six vases with six single flowers in each.

PLANTS.

These proved a strong feature, many very fine plants being staged. Mr. J. Stoney proved a strong competitor, winning for three large flowering, one Japanese or reflexed, and for six pots of large flowering varieties carrying single blooms, Mr. T. Keightley, gardener to P. W. Barr, Esq., scored for one incurved plant and for one single variety. Mr. W. Wilson, gardener to H. Cunningham, Esq., had the best Pompon with a trained plant and one Anemone.

FRUIT.

The Grapes were of uniform excellence. Two bunches Black: First, Mr. W. Wilson with Black Alicantes of wonderful colour.

Two bunches White: Mr. G. Hammond, gardener to Colonel R. Ireland, Blackburne, won with good bunches of Muscat of Alexandria.

Three dishes dessert Apples: Mr. J. McColl, gardener to J. W. Hughes, Esq., led in a good competition. Mr. Hammond won for the single dish.

Three dishes culinary Apples: Mr. G. Hammond had the lead and held his position for the single dish. For three dishes dessert Pears: Mr. J. McColl won, and Mr. G. Hammond for one single dish.

VEGETABLES.

These, as usual, were strongly shown, and in many cases the farmer beat the gardener. Six varieties Potatoes: Mr. T. Lunt led, and for three varieties Mr. J. Stoney came to the fore. Six kidneys and for six rounds and three varieties of rounds Mr. T. Lunt was first in each case.

Mr. Stoney secured the Toogood shield for winning the greatest number of points in the show.

A meeting of the above was held on the 3rd inst., Mr. R. Todd in the chair. The subject for consideration was the autumn exhibitions. This proved very interesting, bringing before the members the chief points of the various exhibitions that had been visited. Liverpool was considered to be too far from the centre of the city to secure the support of the public, but if a hall of similar dimensions could be had in the centre of the city the association undoubtedly would be able to arrange their large show with plenty of room for visitors. The exhibits generally were excellent. Chester, although arranged to good advantage, lacked quality in cut blooms and fruit; the box which contained good blooms was too high, and some foliage would improve matters; the singles were excellent, the flowers from Mr. Barnes being magnificent in quality and arrangement. Hardy fruit and plants were not strong.

Bolton was spoken most favourably of, the groups were very meritorious, showing great taste in arrangement, although the Chrysanthemum flowers were not of

exceptional form. Cut blooms and Grapes were fully up to the average, whilst the pot plants and vegetables were excellent. At Manchester the cut blooms, excepting the cup class, were good, but lacked finish in arrangement, requiring decorative plants to break the formal straight lines, plants, as usual, showing high culture. The society's own plants were never arranged so effectively, making a display that it would be difficult to equal, and possibly the finest floral display ever seen in this huge structure. Stockport was strong in groups, and well arranged, Eccles fully up to their standard, Woolton a very pretty show, the arrangements showing judgment and taste, the quality good. Blooms were fully up to the average, plants better, Grapes not quite so good as usual, hardy fruits wanting in colour and size, vegetables good throughout. Special importance was attached to the appointment of fully qualified judges.

CROYDON HORTICULTURAL MUTUAL IMPROVEMENT SOCIETY.

"How Plants Grow" formed the subject of a lecture given before the members of this society at their rooms, George Street, on the 24th ult., and the lecturer, Mr. H. O. Etherington, manager at Mr. J. R. Box's, West Wickham Nurseries, in a very able and concise form described the building up of plant life, from the commencement of hybridisation till the mature structure is reached. He illustrated his lecture with drawings showing the many parts constructing a plant, and with these illustrations he was enabled to explain the functions each component part fulfilled. The complete harmony Nature has ordained for all parts to work with each other, is an object-lesson in itself, and the dependence on each other is freely exemplified when we see the healthy product of vegetation, for if one of its component parts fails in its separate function, then the whole formation is thrown into a state of disorder and quickly dies. The lecturer emphasised the important feature which light bears towards the life of a plant, and also the ways and means that nourishment is absorbed, both from the soil and the atmosphere which surrounds it. A discussion by the members followed the lecture, and to all questions asked the lecturer gave explicit replies. A hearty vote of thanks to Mr. Etherington concluded a very pleasant evening.

CROYDON HORTICULTURAL SOCIETY.

This society at intervals offers prizes for essays on a given subject in horticulture, by which they hope to create a further interest to the members in inviting them to join in friendly competition. The subject for the last competition was one on "The Most Economical and Best Method to deal with One Acre of Kitchen Garden." The first prize-winner was Mr. A. Middleton, Coombe Lodge Gardens, and he read his winning essay before the members on the 1st inst., at their rooms, George Street. Mr. Middleton, although only a young man, had grasped his subject in a very practical and praiseworthy manner, showing very careful study from the commencement to the finish of his paper. He dealt with the arrangement of the garden in the several plots of ground which should be allotted to each variety of produce required, setting forth the cost and revenue accruing to each, and if similar methods to those he expounded were adopted, a continuous supply of produce could be obtained all the year round. The members present entered into discussion on Mr. Middleton's remarks, each one emphasising some of the different features his paper had raised, and at the conclusion a hearty and unanimous vote of thanks was accorded the essayist. The exhibits staged at the meeting were some specimens of three new varieties of Potatoes, viz., the celebrated Northern Star, Sir John Llewellyn, and Evergood, and the thanks of the members were conveyed to Messrs. E. W. and S. Rogers, Croydon and Thornton Heath, for sending them. The fourth annual dinner of this society will be held at the Greyhound Hotel, Croydon, on Wednesday, February 10, 1904.

BORDER DISTRICT.

The third show of the Border District Chrysanthemum Society was held at Hawick, N.B., on the 27th and 28th ult., and it is generally acknowledged that it was the finest yet held by the society. The Corporation of Hawick presented a piece of silver plate as the leading prize, and this called out a capital competition for eight vases of Japanese blooms, three in each vase. After the award had been given to Mr. William Black, Hawick, it was discovered that an error in pointing had been made, and on a recount the prize was awarded to Mr. R. M. Laidlaw, Galashiels, Mr. Black being second.

For twelve blooms, distinct, Mr. J. Clark, Selkirk, was first, thus winning the medal; second, Mr. R. M. Laidlaw. For six blooms, distinct, Mr. D. May, Galashiels, was first; second, Mr. Laidlaw. Mr. W. Black was first for six blooms, distinct; second, Mr. Laidlaw. Mr. J. Clark was awarded the prize for twelve incurved. Vegetables were excellent. Mr. J. Turner, jun., was first for a collection; second, Mr. J. Hood.

Other leading winners with vegetables were Mr. W. Gowenlock, Galashiels; Mr. J. Williamson, Lilliesleaf; Mr. J. Patterson, Rutherford; Mr. D. Pitt, Eccles; Mr. T. Young, Jedburgh; Mr. A. Bruce, Galashiels; and Mr. A. Hogg, Hawick.

DUNDEE CHRYSANTHEMUM SHOW.

The Dundee show is one of the most important of the Scottish Chrysanthemum exhibitions, and that opened on the 27th ult. in the capacious Drill Hall showed a greater advance upon previous shows here than could have been anticipated in such a season. Gratifying as it is to report an increase in the number of entries, it is even more pleasing to be able to state that several new exhibitors entered upon the competition with satisfactory results.

In the class for twelve vases of Japanese blooms in twelve varieties only two entries appeared, but these were from

such skilful competitors as Mr. J. Belsant, Castle Huntley, and Mr. D. Nicoll, Rosbie, Forganenny. Reversing their positions at the Edinburgh show, Mr. Belsant won the first prize and the Armitstead gold medal with a splendid exhibit, including noble blooms of Mrs. G. Milham, F. S. Vail, Florence Molyneux, Mrs. Barclay, &c. Mr. Nicoll's were very fine also.

In the class for six vases of Japanese, Mr. J. Adam, St. Clements, Forfar, was first, followed by Mr. G. Ruckie, Linfield, Broughty Ferry, and Mr. D. Keiller, Seaborn. Mr. D. Nicoll was first for four vases of Japanese incurved. Mr. J. Belsant won in the class for twenty-four Japanese, not less than twelve varieties, and thus becomes the owner of the cup, which he won last year; Mr. Nicoll was second; Mr. J. H. Cumming, Grantully Castle, third.

Mr. W. Dickson, Adderley, was first for three vases of singles with a nice lot, and other first prize-takers in the cut bloom classes were Mr. D. K. Meaton, The Lodge, Broughty Ferry; Mr. R. J. Walker, Edradynate, Strathay; Mr. J. Dick, Heathbank, Barnhill; and Mr. G. Scott, Seathwood.

Plants were of high quality. There was a good competition for the circular group prize, the Dundee Corporation cup, Mr. J. Fairweather, gardener to Lord Provost Barrie, Airlie Park, Broughty Ferry, being the winner with a very tasteful arrangement; Mr. J. Beattie, Binrock, was second; and Mr. W. Kennedy, Ardarroch, third. Mr. A. Hutcheon, Mr. J. Beattie, Mr. G. Scott, and Mr. D. K. Meaton took the other first prizes for pot Chrysanthemums. Other pot plants were good as a whole, the winter-flowering Begonias of Mr. D. Saunders, Tay Park, and the table plants from Mr. G. Ruckie, Linfield, Broughty Ferry, being especially well cultivated.

Fruit was not largely shown, but was generally of a creditable character. Space will not admit of details, but Mr. G. Scott won the first prize for Grapes. Vegetables were of high quality throughout, and Mr. J. Kinnes, Fernbrae, was first out of five competitors with a capital collection. The amateurs' and young people's sections were strongly contested.

The nurserymen added much to the success of the show, such local firms as Messrs. Laird and Sinclair, who had a large table; Messrs. Thynne and Paton, Messrs. Storrie and Storrie, Messrs. D. and W. Croll, and others sending valuable exhibits. The Hon. M. G. Stuart Gray of Kinfauns opened the show with a most interesting speech.

LIVERPOOL.

A MEETING was held on the 5th inst. at the society's office, Victoria Street, Liverpool. Mr. T. Foster presiding over a large attendance to hear a paper by Mr. E. Horn, of Dawley, Birkenhead, on a "Supply of Cut Flowers, Indoor Growth, for Private Consumption, and Cultural Details." The subject was a large one and dealt with in a comprehensive manner, in an alphabetical form, and included stove, greenhouse, and hardy kinds suitable for the purpose. Cultural notes were briefly given, in which good light, ventilation, and feeding were urged as likely to produce the desired results. After the lecture, the audience were requested to give the results of their experience on the matter, or further questioning the lecturer. This invitation produced an excellent discussion, adding largely to the valuable hints of the lecturer, with strong advice as to the judicious use of manures in their various forms, the system of watering, and hints as to the cure and prevention of the numerous insect pests. Among those who joined in the debate were Messrs. N. Ranger, C. Sherry, H. Devanney, Jos. Stoney, John Stoney, E. G. Waterman, and others. Votes of thanks were tendered to the lecturer and chairman for their valuable services.

NATIONAL AMATEUR GARDENERS' ASSOCIATION.

The monthly meeting was held at Winchester House, Old Broad Street, London, E.C., on Tuesday, the 1st inst. Mr. T. W. Sanders, F.L.S., in the chair. A lecture on "Vegetables" was given by Mr. George Hobday, F.R.H.S., with several lantern illustrations. Mr. Hobday is one of the most successful *bond-fide* amateur gardeners in this country, and as an exhibitor of high quality vegetables he is unsurpassed. He is an ardent disciple of Mr. Edwin Beckett, whom he endeavours to emulate, and from an amateur's point of view his products are remarkable. The more important classes of vegetables were each dealt with in turn, the preparation of the soil, sowing, planting, and general culture being clearly laid down. Mr. Hobday is a great believer in deep culture, and this fact was repeatedly brought out in the course of the lecture. A selection of varieties was given in each class of vegetable, and those members of the association who were present showed their appreciation of the lecturer's remarks by according him a hearty vote of thanks. The monthly exhibition was naturally much smaller than usual, but was interesting.

READING GARDENERS' ASSOCIATION.

THE usual fortnightly meeting was held on the 25th ult., the president (Mr. Leonard Sutton) presiding over a good attendance of members. The subject for the evening was "The Seeding of Chrysanthemums in England," and was introduced by Mr. Pole-Routh, Oakfield, Reading. The paper proved to be a very interesting one, and a good discussion followed, in which the President, Messrs. Barnes, Bassel, Alexander, Wilson, Wicks, Dore, Judd, Stanton, Nere, Eder, Tufnall, and Winsor took part. The exhibits were a feature of the meeting. Honorary.—Group of seedling Chrysanthemums, several of the plants carrying large blooms, by Mr. Pole-Routh; seedling Chrysanthemum plants, by the President; cut blooms of Chrysanthemums, twenty-four vases, raised from seed sown in January, 1903, by Messrs. Sutton and Sons; two specimen plants of *Daphne indica* growing on their own roots, and a vase of *Ranunculus*, by Mr. Harris, the Gardens, Mapledurham House. For the certificate, twenty-four table plants, by Mr. Wynn, the Gardens, Sams, Reading. The plants were well grown, and the certificate was awarded.

CORBRIDGE GARDENERS' CHRYSANTHEMUM SOCIETY.

A VERY successful show was held on the 14th ult. in the Town Hall. The show was the best ever held, the entries were larger, and the quality of the exhibits was high. The principal prize-winners were Messrs. Cameron, Byethorn Gardens; Fraser, Dilton Castle Gardens; Winder, Howden Dene Gardens; Hirdman, Hindley House Gardens; Hays, Loughborough Gardens; Marks, Farnley Hill Gardens; Anderson, Farnley Grange; Davis, The Mount; and Lee, Stagshaw Gardens, in the Japanese section; Messrs. Winder, Lee, Mathieson, and Hays in the incurved section; Messrs. Hirdman and Lee for bush plants; and Mr. Waugh for vegetables and fruit.

The National Chrysanthemum Society's certificate was awarded to Mr. J. Winder for a group of Chrysanthemums in 6-inch pots; and to Mr. J. Cameron, for Japanese blooms. The National Chrysanthemum Society's silver medal was awarded to Mr. J. Cameron for the best vase of Japanese; to Mr. J. Winder for the best vase of incurved; and to Mr. J. Lee for the best bush plant. A silver medal was awarded Mr. J. Waugh for a collection of vegetables. The pots of Begonia Gloire de Lorraine shown from the gardens of J. H. Straker, Esq., Howden Dene (gardener, Mr. J. Winder), were splendid examples, measuring 3 feet by 3½ feet.

The first prize in a class for table decoration (open) was won by Mr. A. Morerley; Mr. Hall, Ravenstone, second; and Mr. Lister third.

The Gardeners' Society are indebted to the ladies of the district for the help received in providing refreshments, &c., and in making the show a financial success. The judges for table decoration were Lady Aline Beaumont, Mrs. Barnett, and Mrs. Edwards; for cut flowers, &c., Mr. Smith Barron, Mr. Bollom (Axwell Park, Blaydon), and Mr. Bell, Lynwood Jeasmond.

NATIONAL SWEET PEA SOCIETY.

ANNUAL MEETING AND REPORT FOR 1903.

THE annual meeting was held at the Hotel Windsor on Tuesday last, and the following is the report:—

"In presenting to the members of the society the third annual report, the committee is gratified that it should be so satisfactory. The past season has been the most important in the society's brief history. A controversy arose out of your committee's action in regard to the judges for the last exhibition. Fortunately this was only momentarily, and the arrangements for 1904 are before the committee.

"The past summer was wet and cool, with the result that Sweet Peas flourished grandly, though the coldness of the spring put a severe handicap upon the plants in their early stages. In many places the plants attained to the exceptional height of 10 feet, and produced flowers which were remarkable alike for colour, size, and substance. The exhibition held in Prince's Hall, Earl's Court, was a magnificent success, and your committee's only regret is that the exhibition authorities failed adequately to advertise the gathering. Apart from this the authorities were most courteous, and did all they could to make the exhibition a success. The thanks of the society are specially due in this matter to Henry Hartley, Esq., the managing director, and to Mr. Bond, the clerk of the works.

"The exhibition was so extensive that it was found imperative to remove the barrier at the one end of the large hall with a view to securing an extra 360 square feet of space, and even then the tables were in some places a trifle crowded. The general effect of the show was excellent, though a little flatness was apparent in the centre tables. This your committee will endeavour to overcome at future exhibition, as it is very desirable that every advantage should be taken of the excellence of Sweet Peas for decorative effects.

"In 1902 the society conducted a classification of Sweet Peas, and it was thought that this might be annually revised. At a meeting of your committee held on June 9 it was, however, considered that an audit of the varieties shown would be valuable as indicating the best sorts to grow, and the honorary secretary was instructed to arrange for this. Mr. Charles H. Curtis was eventually requested to undertake this decidedly onerous task, and the results of his labours are set forth on pages 11 to 14. The tabulations show to what a remarkable degree the classification of the previous year was correct, as the present audit substantiates it in all salient points. Your committee would especially commend this audit to the trade to whom it is bound to prove of immense assistance in determining the varieties most worthy of retention in catalogues; and it would also draw the attention of cultivators to the colour list in the audit, as this is certainly a list of the very best varieties. The thanks of the society are due to Mr. Curtis for the exhaustive manner in which the audit is prepared. Your committee would again draw the attention of members to the

"PROPERTIES OF THE SWEET PEA.

"Form.—The standards must be erect, waved, or only slightly hooded. The standard, wings, and keel to be in proportion to each other as will constitute a harmonious and well-balanced flower.

"Number of blooms on a stem.—No variety shall be recognised that has not at least three blooms on a stem, gracefully disposed.

"Colour.—Distinct and clear self colours are most to be desired, and therefore striped, watered, and edged flowers will not be awarded certificates of merit unless they present quite new and remarkable combinations.

"Exceptions.—Perfectly distinct new colours, such as approaching the blue of *Salvia patens*, the yellow of *Corceps grandiflora*, or the scarlet of the zonal *Pelargonium* shall be recognised, even if the variety shall fall short of the foregoing properties.

"Upon the completion of the judging on the first day of the exhibition, the committee met to consider the merits of the new varieties, of which some two or three dozen were shown. First-class certificates were awarded to Florence Molyneux (Dobbie and Co. and E. Molyneux), Cupid Her

Majesty and Cupid Lottie Eckford (H. Cannell and Sons), Scarlet Gem, and King Edward VII. (Henry Eckford). The following varieties were highly commended: Cupid Mrs. J. Chamberlain, Cupid Royalty, Cupid Captain of the Blues (H. Cannell and Sons), and Bolton's Pink (R. Bolton). Mr. John Ingman, from Mr. Silas Cole, the committee desired to see again. The silver medal of the society for the finest novelty of the year was unanimously awarded to Scarlet Gem, which, although in some cases having only two blossoms on a stem, was so remarkable in colour as to bring it well within the scope of the last clause in the 'Properties of the Sweet Pea,' set forth above.

"The financial position of the society is satisfactory, for notwithstanding the fact that the expenses at the show were slightly higher, the balance at the bank is rather higher than last year. The support given by the trade was most excellent, and your thanks are due to those who gave special prizes, as well as to the many friends who helped with annual subscriptions. The number of members again shows a substantial increase.

"The thanks of the society are especially due to Mr. Charles E. Shea and Mr. George Gordon, V.M.H., president, for the assistance they rendered in adjudicating upon the several splendid exhibits contributed by the trade. Their awards were: A large gold medal to Messrs. Hobbies, Limited, Dereham; gold medals to Messrs. C. W. Breadmore, Winchester, and H. Cannell and Son, Swanley; silver-gilt medals to Messrs. Dobbie and Co., Rotham, and Henry Eckford, Wem; large silver medal to Messrs. Jones and Son, Shrewsbury; silver medal to Messrs. E. W. King and Son, Coggeshall; and a small silver medal to Mr. J. Williams, Ealing. Your thanks are also due to Mr. Cecil W. Greenwood for invaluable assistance rendered to the hon. secretary in the management of the show, and also to the several members of the committee who acted as stewards."

BALANCE SHEET, 1903.

	£	s.	d.
Balance in hand	29	19	2
Subscriptions	75	3	6
Donations	46	16	0
Advertisements in schedule	1	5	0
Hire of space	9	3	9
" " bottles	4	1	8
	£166	9	1
Honorarium to R. Dean	5	5	0
" " H. J. Wright	5	5	0
Prizes awarded	68	18	0
Preparation of audit	8	3	0
Assistance at show	1	8	3
Hire of vases	1	14	9
Printing, cards, certificates, circulars, &c.	17	1	11
Hire of rooms	2	0	0
Judges' fees	8	8	0
Luncheon to committee and judges	8	18	3
Silver medal	0	14	6
Advertising	3	10	0
Sec.'s expenses, postage, wires, petty cash, &c.	9	9	0
Bank charges	0	4	9
Balance at bank	30	8	0
	£166	9	1

Examined as per vouchers, &c., and found correct,

C. W. GREENWOOD.

Mr. Eckford, the famous Sweet Pea raiser, is the new president, and Mr. Whitpain Nutting the new chairman of committee. Mr. H. J. Wright, 32, Dault Road, Wandsworth, S.W., is the excellent secretary.

NATIONAL CHRYSANTHEMUM SOCIETY.

THE last of the three annual exhibitions of the above society was held on Tuesday and Wednesday last at the Crystal Palace. The display was a comparatively small one, and miscellaneous plants and fruit formed no inconsiderable portion of it.

PLANTS.

Group of Chrysanthemums and other plants: First, Mr. W. Howe, gardener to Lady Tate, Park Hill, Streatham Common, who had a very pretty group, in which Poinsettias were largely used; second, Mr. Robert Forster, Nunhead Cemetery, who used Chrysanthemums almost exclusively.

Table of flowering, berried, and foliage plants: First, Mr. W. Howe, with Begonias, Poinsettias, Crotons, Lilies of the Valley, Calliopsis purpurea, and other effective plants well arranged.

CUT BLOOMS.

Twenty Japanese blooms: First, Mr. J. Simon, gardener to W. W. Mann, Esq., Ravenswood, Bexley, Kent. Mme. Carnot, Henry Stower, and Mr. E. Thirkell were of the best. Mr. G. Hunt, The Gardens, Ashted Park, Epsom, was a very good second. Dorothy Pywell, Bessie Godfrey, and Marquis Venosta were very good blooms.

Twelve Japanese blooms: First, Mr. W. Jinks, The Gardens, Knowle Green House, Staines, Mrs. W. H. Whitehouse and Mrs. Weeks being his best blooms; second, Mr. G. Hunt, with Dorothy Pywell, very good; third, Mr. J. Simon, The Gardens, Ravenswood, Bexley Heath.

Six Japanese blooms: First, Mr. W. Jinks, with Mrs. W. H. Whitehouse the best; second, Mr. W. G. Prudden-Clark, York Road, Hitchin; third, Mr. A. Shipway, gardener to E. C. Forster, Esq., Sutton, Surrey.

Twelve incurved blooms: First, Mr. G. Hunt, Ashted Park Gardens, with excellent flowers, notably of Mlle. Lucie Faure, Frank Hammond, May Bell, and The Egyptian; second, Mr. J. Simon, Bexley Heath, with good blooms also.

Six Japanese blooms: First, Mr. H. Restell, gardener to F. S. Wigram, Esq., Elston, Bedford, with Mrs. A. H. Whitehouse and Florence Molyneux very good.

Six bunches of Chrysanthemums, any varieties: First, Mr. W. G. Prudden-Clark, York Road, Hitchin. Mrs. Barkley

was the best vaseful; second, Mr. Ernest E. Horsey, Goff's Oak, Cheshunt.

Mr. W. C. Pagram was first for six bunches of small-flowered Pompons.

Twenty-four bunches (in vases) of Chrysanthemums: First, Mr. G. Hunt, gardener to Pantis Rail, Esq., Ashted Park Gardens, Epsom, with Dorothy Pywell, Mlle. Lucie Faure, Mme. R. Cadbury, and Miss E. Seward among the best.

Twelve bunches of Japanese blooms (in vases): First, Mr. G. Hunt, with Mme. Carnot and Dorothy Pywell as the best.

Mr. W. C. Pagram, gardener to J. Courtenay, Esq., The Whin, Weybridge, was first for six bunches of large-flowered singles. Mr. Pagram was also first for six bunches of small-flowered singles.

Six flowering Begonias: First, Mr. Perkins, The Gardens, Greenlands, Henley, with good plants; second, Mr. W. Howe, The Gardens, Park Hill.

Hand-basket of Chrysanthemums: First, Mrs. Crosby Smith, Loughborough Road, S.W.; second, Mrs. A. Taylor, East Finchley, N.

Large vase of Chrysanthemums: First, Mr. V. Pestell, gardener to F. S. Wigram, Esq., Elston, Bedford, with a handsome exhibit; second, Mr. Pagram, gardener to J. Courtenay, Esq.

Six Japanese blooms (not less than four varieties): First, Mr. W. G. Prudden-Clark, Mrs. J. C. Nevill being a splendid bloom; second, Mr. Ernest E. Horsey, Cheshunt; third, Mr. George Moorman.

Mr. Pagram was first for a vase of Pompon Chrysanthemums, and Mr. A. Taylor, East Finchley, second.

For a large vase of Chrysanthemums a second prize was given to Mrs. Crosby Smith, Loughborough Road, S.W.

Mr. Charles Brown, gardener to R. Henley, Esq., Langley House, Abbot's Langley, was first for six bunches of spidery petalled Chrysanthemums; Mr. W. C. Pagram being second, and Mr. A. Taylor, 5, Verron Terrace, East Finchley, third.

Messrs. Clibran, Altrincham and Manchester, had an extensive display of single Chrysanthemums in many attractive varieties. Numerous unnamed seedlings were included, some of them of considerable merit. Silver-gilt medal.

Mr. W. Perkins, gardener to the Hon. W. F. D. Smith, M.P., Greenlands, Henley-on-Thames, was given a gold medal for a collection of Begonias. B. Gloire de Lorraine and B. Turnford Hall were splendidly shown.

Messrs. J. Cheal and Sons, Crawley, exhibited a collection of dessert and cooking Apples, some of the dishes being excellent, for instance, Bramley's Seedling, Lord Derby, and Nelson Codlin.

Mr. Norman Davis, Framfield, Sussex, showed a group of Chrysanthemums. Interspersed among the plants were many fine cut blooms of G. J. Warren, General Hutton, Countess of Harrowby, Mrs. Mileham, Mme. Paolo Radaelli, and others. Gold medal.

Messrs. Cutbush and Son, Highgate, N., exhibited cut Carnations in variety. Included were Mrs. I. J. Brooks, W. H. Cutbush, Harry Fenn, and Sir Hector Macdonald. Silver medal.

Mr. Thomas Allman, Rowhill Nursery, Wilmington, Kent, showed a rich yellow seedling, Allman's Yellow, a very striking colour, and the flowers freely produced. Evidently a valuable variety for decoration. A first-class certificate was given to this Chrysanthemum. Mr. Allman also showed a group of plants of this variety.

Mr. H. J. Jones, Lycroft Nursery, Lewisham, exhibited a grand bank of Chrysanthemums in great variety and effectively arranged. Richly coloured autumn foliage and Crotons intermixed added largely to the effect. Cut zonal Pelargoniums were also shown by Mr. H. J. Jones. Large gold medal.

Messrs. H. Cannell and Sons, Swanley, Kent, had an admirable lot of hardy fruit, finely coloured, and well preserved. Messrs. Cannell also showed a handsome lot of zonal Pelargoniums in bunches (gold medal), as well as a display of Chrysanthemum blooms in variety.

A silver-gilt medal was awarded to Mr. Robert Forster, Nunhead Cemetery, S.E., for a group of Chrysanthemums and foliage and flowering plants, somewhat stiffly arranged.

Messrs. John Peed and Sons, West Norwood, obtained a silver-gilt medal for a group of miscellaneous flowering and foliage plants arranged upon a table; included were Begonias, Chrysanthemums, Crotons, Palms, Ferns, &c.

The Pattison Lawn Boots were shown by Mr. H. Pattison, 1, Farm Avenue, Streatham Hill, S.W.

HORTICULTURAL EXHIBITS AT THE SMITHFIELD SHOW.

THERE were numerous exhibits from nurserymen at the Smithfield Show held this week in the Agricultural Hall, Islington.

Messrs. Sutton and Sons, Reading, had a large and strikingly arranged stand, whereon were displayed Swedes, Turnips, Mangels, Potatoes, and other vegetables and specimens of the best agricultural grasses. Among the Potatoes were the following sterling varieties: Epicure, Snowball, Sutton's Discovery, and Supreme. Sutton's Pomeranian Turnip, of immense size and first-rate quality, was a feature among the roots. The silver cup, presented by His Majesty the King for the best root crops in Berks, was on view; it was won by R. L. Cotterell, Esq., Ruscombe, Twyford, with Sutton's roots.

Messrs. Webb and Sons, Wordsley, near Stourbridge, exhibited roots and vegetables, farm and garden seeds in great variety. Webb's Invincible Turnip was prominent, and Swedes, Mangels, Potatoes, including such good sorts as Snowdrop, Duke of York, Abundance, Wordsley Pride, Stourbridge Glory, and Progress. Peas, as, for instance, Duke of Albany, Defiance, Gradus, and Eclipse were all finely shown, as well as samples of Barley, Wheat, Oats, &c.

Messrs. Dicksons, Chester, showed samples of Potatoes and other vegetables, agricultural Grasses in variety, and also specimen fruit trees, shrubs, &c.

Messrs. Carter and Co. High Holborn, had an extensive

exhibit of agricultural produce, as Swedes, Turnips, Mangels, Potatoes in many good varieties, Carrots, Onions, and other vegetables, samples of Grasses, &c., altogether a striking exhibit.

Messrs. W. and J. Brown, Stamford and Peterborough, exhibited a collection of Apples, and also some Potatoes, including Northern Star, priced at 8s. 6d. per lb.

Messrs. Fidler and Sons, Reading, had a grand lot of Potatoes, comprising monster tubers of British Lion, Fidler's Pioneer, Evergood, Northern Star, and Up to Date. Other good ones were Charles Fidler, Empress Queen, and Sutton's Discovery.

Mr. A. Findlay, Markinch, N.B., exhibited seedling Potatoes, among which were Ruby Queen, Eighty-fold, Up to Date, Empress, and others.

Messrs. E. Smith and Co., Worcester, exhibited a variety of agricultural produce, *e.g.*, their new model Swede, Brussels Sprouts, Potatoes, Peas Early Bird, Gradus, Eclipse, and others, as well as a collection of Apples.

Messrs. W. Horne and Sons, Cliffe, Rochester, exhibited fruit trees, and a splendid lot of Apples, Potatoes, &c. were also shown by them.

Messrs. Harrison and Sons, Leicester had a display of Swedes, Mangels, Kohl Rabi, Potatoes, Onions, Carrots, Peas, &c.

Messrs. John R. King and Sons, Reading, showed Turnips, Mangels, Potatoes, Peas, &c.

Mr. Alex. Blatchford, Coventry, exhibited a variety of roots and vegetables.

Messrs. E. W. King and Co., Coggeshall, showed Swedes, Turnips, Potatoes, &c.

Messrs. W. Dennis and Son, Kirton, Lincs, showed Potatoes in variety.

Messrs. Joseph Fison and Co., Ipswich, exhibited fertilisers.

Mr. W. Cullingford, Walthamstow, had on view a variety of garden nets.

Messrs. William Colchester, Ipswich, exhibited their well-known fertilisers.

Mr. S. M. Thomson, Edinburgh, showed some of the excellent varieties of Potatoes raised at Dalmeny; for instance, Evergood, Dalmeny Beauty, Empress Queen, and others.

Mr. Scarlett, Edinburgh, showed Potatoes in many of the best sorts.

Messrs. Garton and Co., Warrington, exhibited general agricultural produce.

M. Bonpland.—A CORRECTION.—By a slip the name of the famous botanist Bonpland is spelt Boupland in THE GARDEN, December 5, page 289.

The Gardeners' Association.—The promoters will meet on Tuesday next at the Hotel Windsor. We have received many letters which we are unfortunately compelled through pressure upon space to hold over until next week.

Edinburgh Seed Trade Dinner.—The annual dinner of the Edinburgh Seed Trade Assistants was held in Ferguson and Forrester's, Princes Street, Edinburgh, recently. This is the ninth dinner in connexion with the association, and its success augurs well for its continuance in future years. The chair was occupied by Mr. David W. Thomson, nurseryman, George Street, who fulfilled the duties of the position in a most capable manner. After the usual loyal and patriotic toasts, Mr. J. W. M'Hattie, the superintendent of the City Parks and Gardens, submitted that of the evening, "The Seed Trade Assistants." In the course of a most appropriate speech Mr. M'Hattie referred to the importance to horticulture of the work done by the seed trade, and urged upon the assistants the necessity of endeavouring to keep up the progress made by their predecessors. He also referred to the advance in horticulture during the reign of Queen Victoria, and to the interest taken by King Edward in it. A number of other toasts were given, one which came in for a specially hearty response being that of "The Nursery and Seed Trade."

A French view of the proposed National Potato Society.—Upon learning of the proposal to form a special society devoted to the interests of the Potato, *Le Jardin* says: "In England they need much, if the want of this special society is really felt. We are not competent to deal with the question, but in view of such a decentralisation of effort, for there are special societies for the Rose, Carnation, Chrysanthemum, &c., one is tempted to ask whether after all it is union or division that makes strength. However this may be, we can bear witness to the continued efforts of the English in the improvement of Potato culture."

Old Scottish gardening letters.—At the recent meeting of the Scottish History Society in Edinburgh it was intimated that, included in a forthcoming volume of Miscellanies, to be issued by the society to its members, there

will appear a series of quaint and instructive letters written by Cookburn of Ormiston to his gardener. They extend over a considerable period—1727-43—and will throw a good deal of light upon Scottish life of the time, and will give much interesting information about the gardening of that period. In the course of a speech made by the Earl of Rosebery at the meeting he threw out the suggestion, after having seen these letters in proof, that they were too interesting to be included in the Miscellanies, and that they should be issued in a separate form. Should Lord Rosebery's suggestion be carried out it is to be hoped that the book may be obtainable by the general public, and not supplied only to the members of the Scottish History Society.—S.

Sheffield Chrysanthemum Society. This excellent society will have a busy year in 1905. Although the committee labour under great difficulties, especially with regard to the charge (£80) made for the use of the Cutlers' Hall for the two days of the show, they are nevertheless determined not to remain idle. The advantages of exhibiting large exhibition blooms in vases have been pointed out to them, and they have been quick to see how attractive their great autumn display may be made by adopting this newer and more natural method of displaying the beauty of the large blooms. A thorough revision of the schedule is being made, and the latter will be issued early in the new year. Next year's Chrysanthemum show will be held on Friday and Saturday, November 11 and 12, and the judges appointed for the occasion are Messrs. H. J. Jones, D. B. Crane, H. Weeks, and T. Welch. Mr. H. Willford, 96, Greenhow Street, Walkley, Sheffield, is the hon. secretary, and he will be pleased to send a copy of the schedule and give other information on being applied to. The monthly meetings of this society are well attended.

Scottish Horticultural Association.—The monthly meeting of this association was held in Dowell's Rooms, George Street, Edinburgh, on the 1st inst. There was a large attendance, presided over by the president, Mr. J. W. M'Hattie, superintendent of the city parks. The subject for the evening was "The Hybrid Streptocarpus and its Culture," the paper being by Mr. William Smale, Blackford Park, Edinburgh. It was of a practical and interesting character, the cultural details being clear and valuable. Cut specimens in illustration of the paper were shown by Mr. Smale, who received the usual vote of thanks at the close. Exhibits were not so numerous as one frequently sees, but among them were vases of Chrysanthemums and Narcissi from Messrs. Todd and Co., florists; a fine variety of *Cattleya labiata* from Mr. G. Wood, gardener to J. Buchanan, Esq., Oswald House, Edinburgh; a new Potato from Messrs. Davie and Co., Haddington; and a new Apple from Mr. Laing. A financial statement regarding the Chrysanthemum show was given, from which it appears that the expenditure amounted to £1,220 and the income to £1,257, the balance in favour of the association being thus about £37. The receipts at the door were about £110 in excess of those of 1902.—S.

ANSWERS TO CORRESPONDENTS.

Names of plants.—B. T.—1, *Luculia gratissima*; 2, leaf of *Rubus laciniatus*.

Names of fruit.—No Name.—1, Apple Cox's Orange Pippin; 2, Wellington; 3 and 4, Too ripe.

Dutchman's pipe (E. T. M.).—The Dutchman's pipe (*Aristolochia Sipho*) is so called because the flower and its stem remind one of the pipe. It is not sufficiently grown; its flowers are not showy, but they are attractive in a way with their dull yellow colouring, streaked with purple. It is deciduous, quick in growth, and has noble leaves. No climber, except the vine, has handsomer foliage.

Mahdi (H.).—The Mahdi is the name of a fruit raised by Messrs. Veitch and Sons between the Blackberry and the Raspberry known as Belle de Fontenay. We know little about it, but a good fruit grower says: "The fruits are very good, and quite distinct from those of the Loganberry in flavour, being sweeter and more juicy." The raisers describe it as prolific, and doubtless it will soon become a standard fruit.

The Giant Thrift (A. B.).—In a warm place in well-drained rockwork the Giant Thrift easily makes itself at home, though, as a native of Southern Europe, it is scarcely happy in those parts of our islands that have a cold or unusually damp climate. The colour of the wild plant is much like that of our native Sea Pink, but there is a fine white variety which is rather the better garden plant. It well deserves a place in every good rock garden, where even before the time of flowering the large tufts of rich green foliage are handsome objects. It grows freely from seed, but the seed of the white cannot be depended on to come true to colour. It is not a satisfactory plant to divide, though division is possible; but it must be done with great care, by a method of careful dissection that shall allot to each crown its due portion of the thick root, that in most cases is a single column, only to be divided with a sharp knife skilfully used.

Gardening as a study (H. S.).—In asking for advice as to how to set about, as a pure amateur, the proper study of gardening, you open up a very wide and comprehensive subject. The greatest gardeners have all been those who as boys started in the very lowest grades of labour, washing pots, preparing crocks for drainage, weeding, preparing shreds for tree nailing, and many other very elementary occupations, all of which, menial as they may seem, yet it is absolutely essential the gardener should know, or otherwise he will not later know how to instruct others or to tell whether rightly done or not. You evidently wish to start your study in a more advanced form, yet if, for instance, you wish to grow plants in pots in a greenhouse or elsewhere, and do not understand the importance of having clean pots, of proper drainage, of suitable composts, of the rationale of watering, of warmth, of ventilation, of propagation by seed sowing, by cuttings, by layers, or other ways, how is it possible to expect that your efforts in plant culture can be successful. You have a large garden in which you would grow fruit? So far north as you are, you have first to ascertain what kinds of fruit will do well in the open, and then what varieties of those kinds are best for your locality. That knowledge is best ascertained by local enquiry. Some fruits will do well as bush or standard trees in the open, others will do well only on brick walls; some will need warm or sunny borders; some do best in more open positions; some trained flatwise as espaliers or cordons, as the case may be. But before you can grow fruit successfully you must have your ground well prepared by trenching from 20 inches to 24 inches deep, and that the trees and bushes may find in the soil needful constituents, mix with it wood ashes, old mortar or lime rubbish, soot, and bone dust. These are much more desirable constituents than is raw manure, which should be applied only in the form of surface-dressings. You would have to study the average dimensions of trees and bushes when fully grown, and plant at such distances as will enable them to fully develop. If you embark in vegetable culture, as doubtless you will, the ground for it must be trenched also, but in that case burying down plenty of animal manure to make a foundation and assist deep rooting. You must learn the best methods and times of sowing seeds of the various kinds of vegetables, or other methods of increase, such as with Seakale, Globe Artichokes, Rhubarb, &c.; also best times for sowing, distances apart, thinning, weeding, keeping clean, storing, and so many other things. These things constitute essentials, if elementary work. Still, an intelligent student having ground on acquire all this knowledge in time, especially after having had a few failures. The suggestion that you would like to study scientific research, as applied to plant life and hybridising, indicates a turn of mind of a more ambitious nature than is found in the study of elementary gardening. All the same, even the most advanced scientific study is greatly helped when the student has thoroughly grasped the principles of culture in relation to all descriptions of plant life. To point out all the roads open for a scientific student to travel would be in these pages impossible. You had best obtain some books suitable for your purposes, such as "Gardening for Beginners," by E. T. Cook, published at this office (12s. 6d.); "Beckett's Book of Vegetable Culture," may be had of E. Beckett, Aldenham House, Elstree (2s. 6d.); "Wright's Gold Medal Essay on Fruit Culture," City Press office, Aldergate Street, E.C. (1s. 3d.); "Botany for Beginners," by Professor Henslow, Stanford, London (2s. 6d.); "Plant Life," by Dr. Masters, Vinton and Co., 9, New Bridge Street, E.C. (2s. 6d.). More advanced books can be taken later as study, both practical and theoretical, advances. If you become a Fellow of the Royal Horticultural Society (annual subscription one guinea), even if you could not attend the society's London meetings you would get a copy of the society's massive journal, issued about three times a year, and which you would find to contain a vast amount of useful information. But you have first to master the elements of gardening and plant physiology, and by the time that is complete you will better understand in what particular direction you need further guidance and assistance.

TRADE NOTE.

BARR'S BULB CATALOGUES.

THE bulb catalogues that are issued by Messrs. Barr and Sons, King Street, Covent Garden, contain descriptions of several novelties in Anemones, Begonias, Calceolarias, &c., as well as new seedling Daffodils. The latter comprise the white trumpet variety, Peter Barr, and many others of various types. The value of these catalogues is enhanced by the cultural notes which are given, and the alphabetical sequence of all items renders them especially convenient for reference.

* * * The Yearly Subscription to THE GARDEN is: *Inland*, 15s.; *Foreign*, 17s. 6d.

THE GARDEN

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[DECEMBER 19, 1903.]

THE NATIONAL ROSE SOCIETY.

A GREAT MEETING.

THURSDAY in last week was somewhat in the nature of a red-letter day in the history of the National Rose Society. Probably the attendance at both the annual meeting and dinner which followed was larger than on any previous occasion, and both were presided over by chairmen of exceptionable ability and tact, the former by Mr. C. E. Shea, and the latter by Mr. H. V. Machin, whose breezy good humour and sincerity made the social side of the gathering of more than passing importance.

The annual report, which is given as fully as space will allow, is wholesome reading. It sets forth the extreme vitality of the society, and Mr. Shea, even in the face of arguments which in some societies would have led to acrimonious remarks, had no difficulty in preserving the good temper of the large gathering of members.

In his speech he mentioned that it was cause for great congratulation that the roll of membership was now over 1,000, and the less dependence that is placed upon the takings at the gate of the various exhibitions that may be held the better. We thoroughly agree with the chairman that the foundation to lay is one of solid membership, and the Royal Horticultural Society may be taken as an example of building up a large and increasing income, not from the exhibition returns solely, but from the subscriptions of the Fellows. No one recognises this more than Mr. Mawley, the excellent hon. secretary, whose quiet, unselfish, and successful work is bringing its just reward. But we honestly think the society will blunder seriously if the provincial shows are to be memories of the past. These are now in abeyance because they did not apparently all pay, and the society is without a reserve fund in the event of financial accidents. It is always a mistake for societies and journals to be local, and there is a danger of this occurring when the headquarters are in London. A reserve fund is a necessity, and Mr. Mawley's suggestion that one should be established should take practical form in the near future. It is a matter for the large and influential committee to consider during the coming year, in the hope of establishing at least one provincial show to remove an impression in some quarters

that the society is not sufficiently "national" in its workings and influence. It must be comprehensive in its undertakings if it is to expand and become a greater power in the world of flowers.

The Rev. J. H. Pemberton insisted upon this in his strong appeal for fixing the date of the "Temple" show, as we are pleased to call it, though the description is misleading—we think of the big May exhibition of the Royal Horticultural Society—not *earlier* than July 6. It was quite refreshing to hear the arguments on both sides—a good-tempered passage of arms between entirely opposed parties. Mr. Mawley, after Mr. Pemberton's remarks, at once proposed an amendment to the effect that the date be fixed some time between July 3 and July 9. Then began a series of arguments from many speakers, one section insisting upon the earlier date and the other the later, urging that even July 11 or 12 would not be too late to get a really representative display. As our report shows, the advice of Mr. Pemberton was most acceptable to the meeting, and, we think, rightly. There is much to be said for the small grower in fixing the earliest date for holding the show on July 6, and the arguments brought forward were, to our mind, sufficiently convincing. It may appear strange that a large body of Rose growers should argue for about an hour over this question; it was a battle of dates, but of course much depends on even a few days where Roses for exhibition are concerned, and July 6, or as near that day as it is possible for the show to be held, will please, we hope, those in both north and south.

A bright feature of the forthcoming schedule is the autumn show. Our readers are probably aware of the endeavour of this journal to bring such an event to pass, and we feel convinced that the September show next year in the new Hall of the Royal Horticultural Society will be almost as interesting, if not more so, than the annual tournament in the Temple Gardens.

The Rose garden in autumn is a feast of beauty. There are late blooms from the Hybrid Perpetuals, and wondrous colouring and firmness of petal from the Teas and Hybrid Teas, and clustering of flowers from the always-welcome Chinas. It should therefore prove a competitive display of rare interest with trade groups of Roses that are never seen except at miscellaneous shows such as in the Drill Hall, and occasionally elsewhere.

The meetings were so enthusiastic and characterised by so evident an earnestness that the officers of the society should feel quite comfortable about the future. Only the salient points can be touched upon here, and for details we refer to the report. The chairman at the dinner warmly welcomed the successes of the British rosarians in raising seedlings of proved merit. We have no desire to detract from the successes of our French friends in the raising of new Roses. All honour to the great Continental rosarians who have given to the world varieties which are now the pride of our gardens, and will be of those of generations to come, but the successes of Alex. Dickson, W. Paul, G. Paul, Cooling, and others reveal the strength of our determination not to be outclassed in the work of hybridisation. The raising of new Roses by our nurserymen has marked a distinct era in the history of the Rose in this country.

Warm tributes of praise for the work that has been accomplished by the society were received from its aged president, Dean Hole, and from the Rev. H. D'ombrain, at one time co-secretary with Mr. Mawley and founder of the society. The National Rose Society should have a great year before it, and we re-echo the anxious desire of Mr. Mawley that the next exhibition in the Temple Gardens will prove a success, not only pictorially and from the exhibitors' standpoint, but financially also.

A member of the society gets the full guinea's worth for the privilege. The little books issued upon various aspects of Rose culture are of the greatest possible help to beginners, and even to those that have advanced somewhat in the mysteries of the exhibitor's art, thus the society is making firmer still its claim to be what it really is, "National"; not only so, but it is virile and managed by men who, as at the meeting recently held, can argue even hotly without personal differences. When a society goes forward with disinterested motives as its propelling power, it must become an organisation of widening influence and increasing usefulness.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

December 30.—Meeting at the Hotel Windsor to discuss proposal to form National Potato Society.

January 5.—Royal Horticultural Society's Drill Hall Meeting, 12 p.m.

A National Potato Society.—In view of the enormous advance in the price of Potatoes this season, heavy losses from disease, and the importance of the crop, it has been proposed to establish a National Potato Society. A public meeting will be held in the North Room, Hotel Windsor, Victoria Street, Westminster, on Wednesday, the 30th inst., at 3 o'clock, to discuss the matter fully.

Fruit growing in Perthshire.—Disastrous as has been the past season for fruit culture as a rule, in the Blairgowrie district the growers have been more favoured with some crops than their rivals in the south. A considerable addition to the fruit crops of the district is in contemplation by a new company which was recently formed, and which has already begun operations on the lands they have purchased. These are the farms of Drumellie and Wester Essendy, extending to about 400 acres. Although other produce will be raised, the main object of the Blair Estate Company—the title of the company—is fruit growing.—S.

Mr. George Nicholson, F.L.S.—The 129th volume of the *Botanical Magazine* is dedicated to Mr. Nicholson, formerly curator of the Royal Gardens, Kew. Sir Joseph Hooker writes thus:—"Dear Mr. Nicholson, it gives me great pleasure to dedicate to you a volume (CXIXth) of the *Botanical Magazine*, a work in the prosecution of which you for so many years took an active part, especially in selecting for illustration in its pages subjects of botanical interest from amongst the treasures under your supervision in the Royal Gardens. I would further wish you to regard it as a memorial of our official co-operation in the management of those gardens for upwards of twelve years, a period to which I look back with unalloyed pleasure, and also as a tribute to the high value of your special labours in dendrology, and as the author of the 'Dictionary of Gardening.' Believe me, very sincerely yours, Jos. D. HOOKER."

Rubus roseifolius.—The illustration and account of the so-called "Strawberry-Raspberry," published in THE GARDEN last week, are most interesting. Mr. Rehder of the Arnold Arboretum is a careful botanist, and his opinion with regard to this plant is entitled to respect, as also is that of Dr. Focke, who described this *Rubus* as a new species under the name of *illecebrosus*. But the genus *Rubus* is notoriously difficult, and botanists agree to differ with regard to what are species and what are only forms or varieties. For example, the common Blackberry (*R. fruticosus*) presents so many forms that the late Professor Babington separated them into forty-five distinct species. Hooker ("Student's Flora," second edition) recognises twenty-one of them as sub-species; and Bentham, in his "British Flora," recognises only five varieties. Continental botanists are equally at variance with each other as to the species of this genus. I mention this for the purpose of showing how difficult it is to decide the question asked by "A. P. H." with respect to the botanical name of the Strawberry-Raspberry. A comparison of the illustration in THE GARDEN last week with the figure in the *Botanical Magazine*, t. 6,670, reveals some slight differences between the two plants, but there are much greater differences between the forms of *R. roseifolius* in the Kew herbarium. "It is somewhat singular that a plant so widely distributed, so long and well known botanically, rejoicing in eleven specific names, and well adapted for ornamenting a conservatory, should be seldom met with under cultivation." This statement was made by Sir Joseph Hooker in 1887, who also wrote: "As a species *R. roseifolius* is not likely to be confounded with any other." I have known the plant over twenty years at Kew, where it is grown in a warm house, and where it has always been killed by cold in winter when tried out of doors. Sir Joseph Hooker says it is an undoubted native of the Himalaya, the Malay Peninsula, Java, China, and Japan, and that it is naturalised and cultivated in the tropics and warm, temperate regions. It is does not occur anywhere in temperate climates, so that we may conclude that it is too tender to stand the climate of this country. If, therefore, the plant called Strawberry-Raspberry

is so hardy as to be "very valuable for covert planting" in this country, it is an exceptionally hardy form of *R. roseifolius*. The name Strawberry-Raspberry is an absurd one; a much better name is that by which it is known in the West Indies, viz., Red-berry.—W. WATSON, *Kew*.

I forbear to use the all too common title given to this dwarf member of the *Rubus* family, because my object in writing is to protest against its use at all. To describe it or to term it Strawberry-Raspberry when it has not the slightest connexion with these two favourite fruits is grossly misleading. I was exceedingly sorry to note that in his admirable description of the shrub your correspondent, "A. P. H.," still used the common and misleading title. Cannot editors of gardening papers be induced to suppress a term that, because it is even innocently used, does lead many who know no better to think the plant is really a product of the two fruits named? Whilst it makes excellent undergrowth or cover, its fruits, though pretty, are so entirely worthless that it is not worth referring to in any way as an edible fruit. "A. P. H." thinks when put into commerce in America the false name attached helps to deceive purchasers. Certainly the English Press cannot wish to be associated with that deception.—A. D.

Children's bulb-growing competition in Dundee.—Notwithstanding some criticism recently directed against the children's bulb-growing competition in Dundee, the annual distribution of bulbs to the children has again taken place, and the demand experienced for them shows that there is little or no falling off in interest on the part of the recipients. No fewer than 1,800 children have received bulbs and plants, a number about equal to that of last year, and showing a gratifying appreciation of the offer made by the promoters. The difficulty of the supply of soil is surmounted by the gratuitous distribution of leaf-soil, the supply required being no less than ten tons, which is obtained on application to Mr. Montgomery, the caretaker of the Dudhope Park, Dundee. Those who take an interest in the movement have observed with pleasure the number of children who found their way to Dudhope Park with pots of all sorts and conditions in which to procure the soil for their bulbs, many of them coming from the worst slums of the town. It is impossible to tell how the flowers ameliorate the lot of many of the people, but, at all events, they must have a powerful influence for good in the homes of the poor. The movement originated with the Dundee School Board some years ago, its inception being due to Mrs. Carlaw Martin.

Horticulture at Edinburgh Cattle Show.—At the Scottish National Fat Stock Show, held in Edinburgh last week, there was a remarkably fine collection of roots, far superior to what might have been expected, considering the character of the season. It was voted a notable feature of the show that every prize in the open competition for purple-top and sulphate Swedes was carried off by roots grown from the "Springwood" seed of Messrs. Laing and Mather, Kelso. Cabbages were a really excellent show, while Potatoes, though not numerous, were of good quality. The root and seed merchants displayed their goods along the north side of the Market, and the artistic manner in which their stands were arranged was the subject of congratulatory remark. Among the more prominent exhibitors were Messrs. Laing and Mather, Kelso; Messrs. Gartons, Limited, Warrington; Messrs. Sutton and Sons, Reading; Messrs. Edward Webb and Sons, Stourbridge; Mr. William Watt, Cupar and Perth; Messrs. Joseph Thorley, Limited, London; and Messrs. John Armstrong and Co., Murrayfield, Edinburgh.

Ruellia macrantha.—As far back as November 25, 1899, THE GARDEN said of *Ruellia macrantha* "this is to a great extent a neglected plant," and the words seem as true to-day as they were then. Within a couple of days, however, I saw the plant recently in full bloom, both in the public gardens of Camphill (Queen's Park), Glasgow, and in the Royal Botanic Gardens, Edinburgh. Yet there are few gardens where it is to be met with, though flowers of its class to bloom in

November are precious indeed for those who have sufficient glass accommodation. Although there were many good plants in bloom in the admirably kept houses at Camphill, few were more striking than the *Ruellia*. It requires warm greenhouse or stove cultivation to do it justice, and the modes *operandi* of propagation is to strike the cuttings in a slight bottom-heat. When struck they may then be grown on in the stove with plenty of air and light. The young plants should be frequently pinched to cause them to become of a branching habit. The flowers, which are a bright rosy purple, are like those of *Incarvillea Olgae* in general appearance, and are produced in bunches in the axils of the leaves. *Ruellia macrantha*, which belongs to the natural order Acanthaceae, comes from Brazil, and was introduced in 1883.—S. A.

National Gardeners' Association.—A well-attended meeting of head gardeners was held in the room of the Horticultural Club (by kind permission) on Tuesday last, to consider proposals to form an association as above. Mr. Owen Thomas, V.M.H., was voted to the chair, and Mr. A. Dean acted as secretary. Mr. W. H. Divers of Belvoir Castle Gardens, gave the meeting full details as to his reasons for proposing the formation of an association, specially desiring to elevate the gardener's status socially, and that of young gardeners both intellectually and professionally. His very interesting speech was followed by others of exceeding interest and value from Mr. McIndoe, Mr. G. Norman, Mr. C. J. Fielder, Mr. J. Willard, Mr. W. Howe, Mr. Simpson, Mr. Jaques, the chairman, and others. All emphasised the existing evil of overcrowding in the profession, the need for some severer tests than now exist for young gardeners, and the avoidance of anything similar to trade unionism. Ultimately a small committee was appointed to draft a scheme and submit the same to an adjourned meeting to be held in February next.

National Dahlia Society.—The annual general meeting of this society was held on Tuesday last in the Hotel Windsor. The report and financial statement were considered to be very satisfactory. There is a balance in hand of £17 9s. 5d. It was resolved that the society consist of Fellows paying £1 1s., Associates paying 10s. 6d., and Members paying 5s. The resolution was proposed, as the report says, because of the "growing tendency of members to avail themselves of the minimum subscription qualifying membership." Mr. Mawley, who presided, said that although they were unable to make terms with the Royal Horticultural Society for their exhibition in the new Horticultural Hall, they were still the best of friends. The Royal Horticultural Society had formerly been very good to them. Although the Crystal Palace Company for nineteen years had given them £50 to hold the Dahlia show there, for next year they have offered but £20. Reference was made to the "Official Catalogue and Culture Guide" (a copy of which is presented to each member) as doing much good, and Mr. Tulloch and Mr. J. F. Hudson were congratulated upon its compilation. There were three vacancies on the committee, caused by the resignation of Messrs. Henshaw, G. Humphries, and F. W. Fellowes. Messrs. F. G. Oliver, S. G. Humphries, and C. Osmond were elected in their places. All the other officers were re-elected, and the services of Mr. P. W. Tulloch, the hon. secretary, came in for much praise.

The Rev. T. R. R. Stebbing, F.R.S., has been elected zoological secretary and a member of the council of the Linnean Society in succession to Professor G. B. Howes, F.R.S., who has had to retire on account of ill-health.

International Horticultural Exhibition at Turin.—This will be opened on May 10, 1904, and will be closed on May 25. From this date till the end of the month the plants and other exhibits will be sold by auction. Several intending exhibitors, particularly those abroad, having expressed a wish to begin planting after February or March, we hope by then that the enclosure will be ready, and, if the Piedmont climate permits, there will be nothing to prevent their wishes being carried out.

Parks of New York.—The city of New York has over eighty parks, ranging in size from 1 acre to over 1,700 acres. The largest is Pelham Bay Park, near City Island, with 1,756 acres. The others are Van Cortlandt Park, with 1,132 acres; Central Park, 843 acres; Bronx Park, 660 acres; and Prospect Park, Brooklyn, 516 acres, besides other smaller parks and breathing spots, making a total of nearly 7,000 acres.

Pea, Essex Rival.—This variety was raised by that noted amateur horticulturist Mr. G. Hobday of Romford, who is one of the foremost cultivators of high-class vegetables. He kindly sent me a small packet to grow last spring, and it certainly proved to be all that he claimed for it. It grew to a height of 5 feet, has a splendid constitution, is of handsome appearance, and the quality is excellent. It is a splendid exhibition variety, the pods being large and well filled, many containing ten or eleven Peas. It is a mid-season variety, and suitable for August. I have not heard if it is to be put on the market this year, but should this be the case I would advise all who are on the look out for novelties to make a note of it and obtain it, as I feel sure it cannot fail to please. It should be sown thinly, being a very robust grower.

Well-arranged vegetable exhibits.—Vegetables, when tastefully set up, form such a pleasing feature at our leading exhibitions that every inducement should be offered to exhibitors generally to improve as much as possible on the present method of staging. I am perfectly certain we all have much to learn in this respect, and to accomplish this object I should much like to see prizes offered at our horticultural shows for collections of a stated number of dishes and specimens of each, the leading features to be quality and effective arrangement. I have always considered that the encouragement given to vegetables at most of our exhibitions is far too meagre, especially when we consider that good vegetables form one of the most important necessities of life, and I venture to say when substantial prizes are offered, and our leading exhibitors enter into friendly rivalry, high-class vegetables well arranged form one of the most important items at any show. Many are under the impression that the expenses connected with exhibiting vegetables are very small, but I can assure my readers this is not the case, and unless substantial prizes are offered even with the most successful there is little nett gain. Frequently the difference between the value of the first and second prizes is too much. In some instances I have known only a few points dividing the leading collection, and the prize-money being only just one-half—for instance, first prize £10, second prize £5. The division of prizes should certainly, in my opinion, be more fairly equalised, as the societies or donors of special prizes are always protected by the judges having the power to withhold, making awards when the exhibits are not worthy of them.—E. BECKETT.

The California Privet as a hedge plant.—Owing to the fact that this plant was killed to the ground last winter in some parts of New England, the subject has recently been discussed in a bulletin of the New England Association of Park Superintendents. The following comments are by Mr. J. A. Pettigrew of Boston: "In this district California Privet is either killed or pretty well cut to the ground. It is probable that the early and severe cold in December of last year was too severe for the not thoroughly ripened wood, or it may be that Nature, feeling outraged at the misuse of the plant, swept it away with the besom of destruction. In any event, a lesson has been ruthlessly taught, and it will be well if we profit by it. Why such a stiff, unnatural-looking plant should be selected for hedges it would be hard to say, seeing that plenty of better material is available, even among the privets. *L. Iboia* and *vulgaris* are handsomer and hardier, and would make a hedge of softer outline than *L. ovalifolia*. Then we have the *Thorns*, *Crataegus Crus-galli*, *C. mollis*, *C. tomentosa*, and *C. coccinea*, which make good hedge plants. What is prettier than Japan Barberry (*Berberis Thunbergii*) for low hedges? Or *Berberis vulgaris* for

taller work? The Buckthorn (*Rhamnus cathartica*) and *Rhamnus Frangula* make excellent hedges, as do *Beeches* and *Hornbeams*. California Privet is fast growing and easy of propagation, and it is possible these qualities alone have been the reasons for its being pushed by nurserymen for hedge purposes. Let us hope that its day is over, and that the orthodox hedge of California Privet will not in future occupy the front of the stage, as it has done in the past."

Reinwardtia tetragyna.—Several groups in the greenhouse at Kew at the present time (the 5th inst.) are made up largely of this plant. The species is an old favourite in gardens, but is often grown in too hot and dry an atmosphere, by which means it is exposed to bad attacks of red spider, which injure and disfigure the foliage, causing it to drop before the flowering time. The plants at Kew are in 5-inch and 6-inch pots, and are well branched, many having forty or more flowers open at once. In the same house there is a group of *R. trigyna*, a species which is often confused with the above. Seen side by side various differences may be noted, including the colour of the flowers, that of the latter being of a much deeper yellow than the former. Both are Indian plants, and have long been in cultivation.—W. D.

Cooper's Black Grape.—Is it absolutely certain that this very handsome Grape is identical with *Gros Maroc*? Mr. Cole of Swallowfield Park showed bunches as *Cooper's Black* in admirable condition the other day at the Drill Hall, and no one seemed certain as to whether the variety was identical with *Gros Maroc* or not. It would be interesting to learn from Mr. Cole whether he has grown both under name, as only by such test can the matter be settled. It is worthy of note that whilst that Vine authority, Mr. A. F. Barron, was content to say in his book on "Vine Culture": "*Cooper's Black* greatly resembles *Gros Maroc* if it be not identical with that variety"—a very indefinite statement—the *Shrewsbury* show executive say that it is, and will not allow both to be shown in the same collection. Cannot the matter be satisfactorily cleared up? Some growers I believe have called the oval-shaped berried form *Gros Maroc* and the round one *Cooper's Black*. The berries on Mr. Cole's bunches were quite round, and the bunches rather more tapering than those of *Gros Maroc* usually are.—A. D.

Pear fruits out of season.—The following note occurs in a German gardening journal: "From a pyramid Pear tree of the variety *General Todleben* I gathered early in November a belated crop of fruit, which had resulted from a second bloom of May and June, the first one in April having been entirely killed by frost. The fruits produced from this second bloom were only half the normal size, and the flesh, too, was not of the usual reddish yellow colour, but was greenish white. It had, however, a most agreeable flavour, not usual to the variety. It reminded me more of the taste of some fine *Butter Pear*. The most remarkable thing to me, however, was the entire absence of pips and core, not even the slightest trace of the formation of a core being present in any of the fruits I had examined for the purpose. Has anyone else observed this phenomenon before?"—E. H. Planegg.

Is the Capsicum a berried plant?

The reply to Mr. R. Dean's query is, to my mind, "Undoubtedly," and it is a puzzle to me on what grounds his opinion to that effect could as a matter of definition have been overruled by other judges. The definition of a berry in my dictionary (*Ogilvie's*) is "a succulent or pulpy fruit containing naked seed," which, though defective in so far as it would exclude such fruits as *Strawberries*, whose seeds are exerted, certainly covers *Capsicums*, and since one member of the same family, *Solanum capsicastrum*, was admitted as a berried plant, the merely different shape of a precisely similarly constituted fruit on another species should not logically disqualify it. If shape alone did so it would disqualify the *Strawberry* as a berry, for many *Capsicums* are similarly shaped. This consideration, however, is perhaps a little beside

the mark, since in the case in question, ornamental plants, and not fruits *per se* were concerned; but this only aggravates the matter from the logical point of view, since the larger *Capsicums* with their rich colouring are very ornamental indeed. On the other hand, it must be conceded that it is rather difficult to draw the line. The berry of the admitted *Solanum capsicastrum* is to all intents and purposes a small Tomato, but it is clear that, however logical the deduction might be, that true Tomatoes should therefore be admitted as berried plants, it simply would not work, and hence we see that the far greater size of the *Capsicum* fruits might well be the determining factor in the minds of Mr. Dean's opponents instead of the general definition of a berry. In short, the idea of a berry implies a limitation in size, and it is obviously on this point that the "doctors" differed.—C. T. D.

Dundee Horticultural Association.—The monthly meeting of this association was held in the Technical Institute, Dundee, on the 30th ult., Mr. D. Storrie presiding over a large attendance of members. The lecturer for the evening, Mr. M. Anderson, gave a most interesting and instructive lecture on "The Rural Life of Scotland in the Olden Times." Mr. Anderson compared, largely to the advantage of the present, the conditions which prevailed in the olden times with those of the present day. He traced in a most interesting way the rise of horticulture in Scotland, attributing much of its progress to the introduction of the hand loom in the course of the eighteenth century, this industry enabling many of the poorer classes to cultivate their gardens. A number of limelight views illustrated the lecture, which was one of the best given in connexion with the association. The vote of thanks was enthusiastically given.

The Home Gardening Association, Cleveland.—The magnificent results achieved by the public school children of Cleveland, O., in their recent "flower shows," under the auspices of the Home Gardening Association, are worthy of permanent record and emulation. The good work carried on among the children by this Cleveland association has been referred to in these columns on other occasions, and it is decidedly gratifying to note that the promises heretofore held out are being justified even to a greater degree than might have been anticipated. Last year the total number of school flower shows did not exceed eight, while this year twenty-four schools entered the competition for prizes, being one-third of the number of grade schools of the city, and, besides, upwards of thirty schools held flower shows without entering the contest. Comparing the shows of this year with those of last, there was a decided advance in taste, both in selection and arrangement, and there was an evident appreciation of the object of the association to encourage a love of flowers and natural beauty in the minds of the young. Not only was there a sincere enthusiasm displayed by the schools and teachers in the shows, but public interest is being thoroughly aroused, and large numbers of visitors were present to enjoy the floral displays and to give encouragement by their attendance. It may be safely asserted that a vast amount of permanent good has been implanted in the lives and characters of these coming citizens, which is already reacting in their homes, as it will continue to react in all the phases of their careers hereafter.—*Park and Cemetery, Chicago.*

The autumn bloom of Auricula, Polyanthus, and Primrose.—I have scarcely ever before observed the *Polyanthus* and *Primrose* to flower with such prodigality as during the present autumn. It has even been noticed that the common yellow *Primrose* of the fields, which does not usually bloom to any extent in autumn, has flowered profusely. It is a "primulaceous" habit with the *Auricula*, *Polyanthus*, and *Primrose* to bloom in the autumn, but not nearly to the extent I have noticed this season. I attribute the unusual degree of autumn bloom to the fact that the plants have had no resting time during 1903, such as they experience during the hot, drying days of July and August. They grew all the summer through, forming a dense leafage and storing up force which has largely expended itself upon autumn bloom,

and put in peril the prospect of a good head of bloom in spring. The double varieties of the Primrose and such abnormal forms as Jack-in-the-Green and those allied to it have bloomed also. In order to check this flood of autumn bloom, and with an eye to a possible yield of seed in early summer, I have lifted and replanted a large number of my choicest Primroses and Polyanthus, and the process has resulted in a sensible check on this unwonted floriferousness. Really, it is a genuine cause for regret to witness so much floral beauty wrecked by autumn rains and frosts, and splashed with particles of mud. Some yellow Auriculas, and especially Celtic King, which I have in the open ground, have flowered much more freely than the stronger plants of alpine varieties. But in the case of plants in pots under glass few of my show and alpine varieties have bloomed this autumn. One would much rather they did not do so, but reserve their force for the spring months, when the character of the bloom is much more reliable.—R. DEAN.

Broughty Ferry Horticultural Association.—The sixth lecture of the season's course was given in the Grove Academy, Broughty Ferry, on the 2nd inst., Mr. Christison occupying the chair. The lecturer of the evening was Mr. T. T. Watson, Craigend, Perth, his subject being "Plant Breeding: How New Varieties are Got." This important subject was handled in an instructive manner by Mr. Watson, and the discussion which followed was of much educational value. Mr. Watson was heartily thanked for his lecture.

THE ROSE GARDEN.

ROSES OVER OLD TREES.

I SEND you a photograph of Mme. Alfred Carrière Rose against an old tree in my orchard. You will note the little nesting box for the tits, and it is very interesting to watch their movements. Mme. Alfred Carrière is one of the best of all Roses for planting against trees; its large, dead-white flowers are very beautiful, and they appear at intervals through the summer and autumn. It is also almost evergreen, and the foliage has a bright cheery look. J.

EXHIBITION ROSE ANALYSIS, 1896—1903.

ONCE more Mr. E. Mawley, the hon. secretary of the National Rose Society, gives the Rose world the benefit of his researches and the result of his compilation of facts in connexion with that most important and interesting of all questions that the would-be grower and exhibitor of the Rose has to ask himself, namely, What to grow to produce the best results? And I am sure all Rose lovers are very much indebted to Mr. Mawley.

It is necessary for the benefit of those who may not be aware of the methods that Mr. Mawley employs to obtain this result, and who now peruse the analysis for the first time, to briefly explain them:—

"Since 1886 the name of every Rose in all the prize stands at the metropolitan exhibition of the National Rose Society has been taken down and the result afterwards tabulated. The average number of blooms thus dealt with annually has been about 1,800. In the complete table for the whole eighteen years can be found the number of times any variety was staged at all or any of those eighteen exhibitions." The present table deals with the last eight years only, as that number of years is sufficient to give the most trustworthy results; it is brought up to date by the following

method: With regard to the sorts of more recent introduction, such as Bessie Brown, Frau Karl Druschki, &c., the longest trustworthy averages have been given them instead; and the still newer kinds, which for the most part are so recently in commerce as to prevent their being in the hands of the majority of exhibitors, Mr. Mawley this year has gone to the trouble of obtaining the opinion of the best known exhibitors of new Roses amongst the nurserymen and amateurs on the respective merits of fourteen new Hybrid Perpetuals and Hybrid Teas, and three new Teas, the majority of which will not be found in the analysis proper—see special audit of the newer Roses—to be dealt with in a later article.

The analysis has appeared annually in the columns of your esteemed contemporary the *Journal of Horticulture*, and the extracts I have made are from its issue of October 29 last.

It is perhaps worth while to repeat that these figures are obtained from prize stands only, and to point out that they are the result of the highest culture and the greatest care that the Rose can have bestowed upon it. The fact that we find, that difficult Rose to manage, Comtesse de Nadaillac among the first six Teas emphasises this point, and illustrates further the fact, which is true of all statistics, be they rosal, fiscal, or ought else, namely, that they must be read with discretion and care, with due regard to all the circumstances of the case, and it is only when they are so read that their use is to be recommended, their importance real, and they only then become vital.

I have to thank Mr. E. Mawley for his courteous permission to make the following extracts from the article above referred to:—

"The Rose season of 1903, like that of the previous year, proved an extremely backward one, and as the date of the National Show was again unusually early the later flowering Roses were consequently placed in both years at a great disadvantage as compared with those which come into bloom earlier in the summer. Fortunately, however, for our present purpose, the number of early and late seasons were almost equally divided in the eight years covered by this analysis.

"It will be noticed that Bessie Brown still maintains the lead it secured last year over Mrs. John Laing—which variety had previously



MME. ALFRED CARRIÈRE ROSE AGAINST AN OLD TREE.

held the premier position in the table of Hybrid Perpetuals and Hybrid Teas for ten consecutive years. This is, I think, to be regretted, for Mrs. John Laing is not only a grand exhibition Rose, but also an equally dependable variety for ordinary garden cultivation. Bessie Brown, on the other hand, although unsurpassed for exhibition purposes, is so excessively modest that she is almost invariably to be seen with her head bent, instead of holding it erect, as any well-conducted "garden" Rose should do. The positions of the leading four varieties remain as in the previous analysis. In fact, with the exception of Marquise Litta and Gustave Piganeau, both of which have risen two places, there are no changes worth mentioning in the first twelve sorts.

"Of the established kinds, Marquise Litta has never before in the last eight years been as frequently shown as it was this year, and in the same period La France, Mme. Gabriel Luizet, White Lady, and Prince Arthur only once before. On the other hand, A. K. Williams, Captain Hayward, Earl of Dufferin, and Etienne Levet have in no previous year been so indifferently represented, while the records for Her Majesty, Marie Baumann, Alfred Colomb, and Dupuy Jamain are almost equally poor. The above results were, no doubt, principally

brought about by the backward season favouring the early to the disadvantage of the late flowering kinds. Judging by the last two exhibitions of the society the best Roses for an exhibitor to grow in a backward district for the early shows would be the following:—Caroline Testout, Marquise Litta, Mrs. W. J. Grant, Kaiserin Augusta Victoria, La France, Mme. Gabriel Luizet, White Lady, Helen Keller, and Prince Arthur.

"The gradual decline of the crimson H.P.s in our exhibition stands in recent years is much to be deplored, as most of them are not only splendid examples in themselves, but also serve to brighten up and enhance the beauty of their less florid neighbours. We have only to compare the analysis issued five years ago with the present one in order to see how marked this decline has been, even during that short period. In fact, only Captain Hayward, Horace Vernet, Prince Arthur, General Jacqueminot, Comte de Raimbaud, and Xavier Olibo now occupy as good positions as they did in 1898, whereas Ulrich Brunner has lost two places, A. K. Williams seven places, Marie Baumann eight places, Alfred Colomb eight places, Charles Lefebvre ten places, Earl of Dufferin eleven places, Dupuy Jamain four places, Etienne Levat twelve places, Fisher Holmes twelve places, Duke of Wellington eight places, and so on throughout the list.

"At exhibitions there may be some reason for this revolt against the H.P.s, but it becomes altogether unmeaning when applied to our gardens. They may not be, as a rule, such good bedding Roses as the Hybrid Teas, but they are altogether indispensable for other purposes. For instance, in my own garden I should have had no Roses worth looking at during the greater part of the present wet autumn but for these grand crimson and dark crimson Hybrid Perpetuals. Then, again, how few Hybrid Teas can compare in fragrance with Ulrich Brunner, A. K. Williams, Marie Baumann, Alfred Colomb, Charles Lefebvre, Earl of Dufferin, General Jacqueminot, Dr. Andry, E. Y. Teas, Louis Van Houtte, or Maurice Bernardin?

"THE ADVANCE OF THE HYBRID TEAS.

"On the other hand, the advance of the Hybrid Teas has been equally pronounced during the same five years. For example, in the 1898 analysis there were only nine Hybrid Teas on the list, now there are exactly double that number, besides which the following varieties with places in this year's analysis:—Bessie Brown, Mildred Grant, Killarney, Countess of Caledon, Souvenir du President Carnot, Mme. Cadeau-Ramey, Exquisite, Papa Lambert, Gladys Harkness, Mamie, and Robert Scott, are not to be found at all in the list for 1898. There are many charming pink, rose, and creamy white varieties among these new H.T.'s, but, alas! no crimson, with the single exception of Exquisite, which only finds a place at No. 60.

"No fewer than eleven new Roses—varieties sent out during the last five years—will be found in the table. The only 1898 variety is Killarney (No. 30), which occupies about the same position as in the previous analysis. Would that we had many more such Roses—Roses which are good for exhibition, and, at the same time, even more indispensable in the garden. Five new sorts are placed to the credit of 1899. Bessie Brown, which, as before stated, for the second time in succession heads the list of Hybrid Perpetuals and Hybrid Teas.

"Next comes Ulster (No. 22), which has risen three places. Then lower down we reach the handsome Exquisite (No. 60), which makes its

appearance for the first time in the table. Then Mrs. Cocker, also at No. 60, which has fallen fourteen places, and, lastly, Papa Lambert (No. 65), which has not improved upon its last year's position. Of the varieties distributed in 1900, Frau Karl Druschki, although new to the analysis, takes up a position at No. 17. This is in itself a remarkable performance for any new Rose, and only shows what a general favourite with exhibitors this beautiful pure white H.P. has already become. Years ago we had to be content with Mme. Lacharme, which came out as a white H.P. in 1873, and since then we have welcomed in turn Mabel Morrison (1878), Violette Bouyer (1881), Merveille de Lyon (1882), White Baroness (1888), Margaret Dickson (1891), and Marchioness of Londonderry (1893), but none nearly as warmly as we now welcome this sterling acquisition—Frau Karl Druschki.

"In the first place it is pure white, which none of its predecessors can lay claim to be, added to which it has a good, vigorous habit, and is, moreover, one of the freest flowering,

if not the most continuous flowering, of all the Hybrid Perpetuals. The raiser of this remarkable Rose—and all honour be to him—is Peter Lambert of Trier, in Germany. Gladys Harkness, the other variety of the same year, will be found at No. 66. The remaining new kinds are Mildred Grant, Mamie, and Robert Scott, which were sent out the year before last. Mildred Grant, ivory-white in colour, is one of the largest exhibition Roses, if not the largest, in cultivation. Its popularity with exhibitors is already assured. It has performed the same feat as Frau Karl Druschki in rising at once to No. 17 on the list. At present it has shown itself but a moderate grower.

"Mamie and Robert Scott, on their first appearance, take up places at the end of the list. Of the above new varieties Frau Karl Druschki and Papa Lambert came to us from Germany, while the remaining nine are of British origin, no fewer than seven of them having been sent out by one firm alone—Messrs. A. Dickson and Sons of Newtownards, in Ireland."

HYBRID PERPETUALS AND HYBRID TEAS.

Position in Present Analysis.	Average Number of Times Shown.	No. of Times Shown in 1903 in True Relative Proportion to the Average.	Name.	Date of Introduction.	Raiser's or Introducer's Name.	Colour.
1	46.0	46	Bessie Brown, H.T.	1899	A. Dickson and Sons	Creamy white
2	43.6	42	Mrs. John Laing	1887	Bennett	Rosy pink
3	39.3	41	Caroline Testout, H.T.	1890	Pernet-Ducher	Light salmon-pink
4	37.2	31	Ulrich Brunner	1881	Levet	Cherry-red
5	35.0	42	Marquise Litta, H.T.	1893	Pernet-Ducher	Carmine-rose, bright centre
6	35.0	36	Mrs. W. J. Grant, H.T.	1895	A. Dickson and Sons	Bright rosy pink
7	34.0	32	Mrs. R. G. Sharman Crawford	1894		Clear rosy pink
8	32.8	34	Kaiserin Augusta Victoria, H.T.	1891	Lambert and Kelter	Cream, shaded lemon
9	32.4	41	La France, H.T.	1867	Guillot	Silvery rose, shaded lilac
10	30.7	25	A. K. Williams	1877	Schwartz	Bright carmine-red
11	26.5	27	Gustave Plagneau	1889	Pernet-Ducher	Shaded carmine
12	26.2	6	Her Majesty	1835	Bennett	Pale rose
13	24.8	31	Mme. Gabriel Luizet	1877	Liabaud	Light silvery pink
14	24.0	12	Captain Hayward	1893	Bennett	Scarlet crimson
15	23.7	17	Suzanne M. Rodocanachi	1883	Lévesque	Glowing rose
16	21.2	18	Horace Vernet	1866	Guillot	Scarlet-crimson, dark shaded
17	19.0	19	Frau Karl Druschki	1900	Lambert	Pure white
18	19.0	19	Mildred Grant, H.T.	1901	A. Dickson and Sons	Ivory-white, shaded pink
19	19.0	25	White Lady, H.T.	1890	W. Paul and Son	Creamy white
20	18.2	25	Helen Keller	1895	A. Dickson and Sons	Rosy cerise
21	18.2	14	Maria Baumann	1863	Baumann	Soft carmine-red
22	17.0	18	Ulster	1899	A. Dickson and Sons	Salmon-pink
23	16.4	20	Prince Arthur	1875	B. R. Cant	Bright crimson
24	15.7	7	Alfred Colomb	1865	Lacharme	Bright carmine-red
25	15.7	12	Margaret Dickson	1891	A. Dickson and Sons	Ivory-white
26	15.6	12	Dupuy Jamain	1868	Jamain	Bright cerise
27	15.6	12	Francis Michelon	1871	Levet	Deep rose, reverse silvery
28	14.7	14	Charles Lefebvre	1861	Lacharme	Purplish crimson
29	14.1	3	Marchioness of Londonderry	1893	A. Dickson and Sons	Ivory-white
30	13.5	11	Killarney, H.T.	1898	"	Pale pink, shaded white
31	13.0	8	Earl of Dufferin	1887	"	Dark crimson, shaded maroon
32	12.4	12	Marchioness of Downshire	1894	"	Light pink, shaded rose
33	12.1	16	Lady Mary Fitzwilliam, H.T.	1882	Bennett	Rosy flesh
34	12.1	7	Duke of Wellington	1864	Granger	Bright shaded crimson
35	11.7	8	Etienne Levat	1871	Levet	Carmine-rose
36	11.1	13	General Jacqueminot	1853	Roussel	Bright scarlet-crimson
37	11.0	12	Countess of Caledon, H.T.	1897	A. Dickson and Sons	Carmine-rose
38	11.0	4	Fisher Holmes	1865	E. Verdier	Shaded crimson-scarlet
39	11.0	5	Marchioness of Dufferin	1891	A. Dickson and Sons	Pink
40	10.9	9	Victor Hugo	1884	Schwartz	Dazzling crimson, shaded
41	10.7	7	Comte de Raimbaud	1868	Roland	Clear crimson
42	10.7	7	Duke of Edinburgh	1868	Paul and Son	Scarlet-crimson
43	9.3	7	Tom Wood	1896	A. Dickson and Sons	Brownish red
44	8.9	6	Dr. Andry	1864	E. Verdier	Bright crimson
45	8.4	5	Xavier Olibo	1864	Lacharme	Dark velvety crimson
46	8.1	7	E. Y. Teas	1874	E. Verdier	Bright red
47	8.0	7	Beauty of Waltham	1862	W. Paul and Son	Rosy crimson
48	8.0	4	Louis Van Houtte	1869	Lacharme	Deep crimson, shaded maroon
49	7.9	8	Heinrich Schultheis	1882	Bennett	Pinkish rose
50	7.4	6	Duke of Teck	1880	Paul and Son	Light crimson-scarlet
51	7.2	5	Ferdinand de Lesseps	1869	E. Verdier	Shaded crimson
52	7.2	3	Mme. Eugene Verdier	1878	"	Silvery rose
53	7.2	12	Souvenir du President Carnot, H.T.	1895	Pernet-Ducher	Flesh, shaded white
54	7.1	0	Marie Verdier	1877	E. Verdier	Pure rose
55	7.0	6	Mme. Cadeau-Ramey, H.T.	1896	Pernet-Ducher	Rosy flesh, yellow base
56	6.4	6	Duchess of Bedford	1879	Postans	Light scarlet-crimson
57	6.2	0	Jeannie Dickson	1890	A. Dickson and Sons	Soft silvery rose
58	6.2	6	Rev. A. Cheales	1896	Paul and Son	Pure lake, silvery white reverse
59	6.1	3	Camille Bernardin	1865	Gautreau	Light crimson
60	6.0	7	Exquisite, H.T.	1899	W. Paul and Son	Crimson
61	6.0	3	Mrs. Cocker	1899	Cocker	Pale pink
62	5.9	0	Baroness Rothschild	1867	Pernet	Light pink
63	5.9	5	La Haye	1871	Eude	Vermillion-red
64	5.6	1	Duchesse de Morny	1863	E. Verdier	Silvery rose
65	5.5	4	Papa Lambert, H.T.	1899	Lambert	Pinkish rose
66	5.0	5	Gladys Harkness, H.T.	1900	A. Dickson and Sons	Deep salmon-pink, silvery reverse
67	5.0	5	Mamie, H.T.	1901	"	Rose-carmine, yellow base
68	5.0	5	Robert Scott, H.T.	1901	"	Clear rosy pink

* New varieties, whose positions are dependent on their records for the 1903 show only.

I have given Mr. Mawley's comments on the analysis in full; they make very interesting reading.

Mr. Mawley deprecates the gradual decline of the crimson Hybrid Perpetual. I think it is really more apparent than real. We all grow the crimson Hybrid Perpetuals, we cannot do without them, but an amateur to-day, if he wants a good twelve, gets a greater contrast by employing, say, eight Hybrid Teas and four Hybrid Perpetuals than in the old days, when he had practically only the Hybrid Perpetuals to fall back on. I see the result of the analysis would give a proportion of seven to five in favour of the Hybrid Tea. But this is quite reversed in the case of the twenty-four, when we find that the Hybrid Perpetual would have it by fifteen to nine, from which I draw the inference that a good Hybrid Tea is better for show purposes than a good Hybrid Perpetual, and undoubtedly where it gains is in form. After all, it is not, I take it, a question of Hybrid Perpetual or Hybrid Tea, the line of distinction is so very fine that it is difficult often to say where the one begins and the other ends; it is really a question of colour, and that is where the light-coloured Hybrid Tea scores. It forms a desirable contrast, not only to Hybrid Perpetual Horace Vernet, but also to its own Caroline Testout, so that your row of four might easily be made up of one Hybrid Perpetual and three Hybrid Teas, with a result more effective than if you had three Hybrid Perpetuals and one Hybrid Tea, which was, I take it, the old proportion. I do not think there is really anything more in it than that.

Mr. Mawley's welcome to Frau Karl Druschki will add still further to the reputation of this grand Rose. One notes his remark as to its continuous flowering habit. It is possible if the red or crimson Hybrid Perpetuals had come along with similar characteristics we should never have heard anything about the "revolt against the Hybrid Perpetuals."

I hope to deal with the analysis of the Teas and the special audit of the newer Roses next week. HERBERT E. MOLYNEUX.

Brentwood, Balham.

THE LILIES.

(Continued from page 355.)

L. CALLOSUM (Siebold et Zucc.).—A slender growing, small-flowered species from the mountains of Japan and Mandchuria, closely allied to the dainty Siberian *L. tenuifolium*. Bulbs globose, larger than a Walnut, scales white, much contracted near the middle, pointed. Stems 2 feet to 3 feet high, very slender, green, sparsely rooting from their bases. Leaves slender, very narrow, much scattered, ascending, 2 inches long. Flowers, six to eight, in a loose spike, borne on slender, sub-erect, or nodding foot-stalks 6 inches long. Shape tubular in the lower half, fully reflexing from the middle, the petals lance-shaped, brilliant orange-scarlet in colour, entirely free from spots. Anthers protruding considerably and slightly spreading. A pair of thickened, club-shaped, persistent bracts with brush-like, hairy tips are arranged below each flower-stalk. A dainty, brightly coloured Lily, whose duration under cultivation rarely exceeds three years. Not common in cultivation. Flowers in June.

CULTURE AND USES.—This little plant grows well in any light soil, but it cannot be depended upon to flower well more than two successive seasons, for the bulbs are naturally short lived. It dislikes strong sunshine, and

its vegetative powers are very slight, and unless the situation is well chosen it is not likely to thrive. It is best grown in pans under cool house treatment, and seedlings, which are easily raised and grow quickly, are more satisfactory than imported bulbs, for these travel badly, and generally reach this country in a very poor state.

L. carniolicum (Beruh.), the Carniolian or nodding Red Lily.—A graceful Turncap Lily from Carniola, Bosnia, and Dalmatia. Bulbs egg-shaped, straw yellow, composed of narrowly lance-shaped scales in considerable number, roots stout, deeply descending. Stems 3 feet high, green, very sparsely rooting from their bases. Leaves scattered, narrowly lance-shaped, ascending, rough on the margins and mid-ribs, 3 inches to 4 inches long. Flowers drooping, one to three, in a lax umbel, the long foot-stalks and upper portion of the stems bending; the colour is red, the petals broadly lance-shaped, much recurved from the base, forming perfect rings, minutely dotted black in the lower half, $2\frac{1}{2}$ inches across when fully reflexed. Anthers saffron-tinted. Styles red. Closely allied to *L. chalcadonicum* and *L. pyrenaicum*. Common in cultivation. Flowers in June—July. Var. unicolor is the rare unspotted form. Culture and uses as for *chalcadonicum*, which see.

L. carolinianum (Michaux not Catesby), the Carolina Swamp Lily.—Closely allied to *L. superbum*, but distinct from it in its smaller size and bulb formation. Bulbs laxly ovoid, not rhizomatous, white, 5 inches to 6 inches in circumference. Scales sickle-shaped, with straggling tips. Roots very numerous and stout, as in columbianum. Stems 3 feet to 4 feet high, hollow, green, producing no roots from their bases. Leaves stout, deep green, broadly lance-shaped, widest near the tips, in four to five whorls of six to eight each, a few scattered above and below. Flowers, three to five, nodding, borne on long, bending foot-stalks 3 inches to 6 inches long, orange-red, shading to yellow internally, or dotted maroon low down. The reflexing tips reddish crimson. Fragrant. Not common in cultivation. Flowers in August. Midway between *L. columbianum* and *L. superbum*. Inhabits marshy land of the South-Eastern United States of America, principally Carolina and Virginia. Culture and uses as for *L. canadense*, which see.

L. Catesbaei (Walt.), Catesby's Orange Erect-flowered Lily.—A neat habited species, closely allied to *L. philadelphicum*. Proves exceedingly difficult to grow. Bulbs narrowly cone-shaped, composed of six to eight bluntly lance-shaped whitish scales, which have borne leaves in the previous years. Stems 2 feet high, slender, hollow, green, basal roots scarcely any. Leaves grassy, very narrow throughout, scattered above, aggregated and longest below, broadest and whorled below their florescence, ascending, 2 inches to 3 inches long. Flowers three to five, orange-red, cup-shaped, 3 inches across, the tips alone reflexing; the petals narrow, of thin substance, spotted purple internally, anthers red. Rare in cultivation. Flowers in July. Inhabits warm swampy districts of South Carolina. The bulbs are very difficult to import, and their duration under cultivation rarely exceeds one year.

CULTURE AND USES.—This Lily requires a warm and wet soil, such as a fully exposed bog garden containing peat, and we have seen it doing well at the water's edge. It is too tender for cultivation in the North and the Midlands, and it absolutely refuses to grow in soils of limestone formation. Bulbs are difficult to import in a sound condition, hence colonies must be started by means of seeds, which germinate and grow readily if freshly

imported. The seedlings generally die after flowering well once.

L. Cataniæ (Vis.).—See *L. Martagon*, var. *Cataniæ*.

L. chalcadonicum (L.), the Scarlet Turncap Lily.—A well known and very beautiful Lily, thriving well in most districts. Long known to cultivation. Bulbs conical, 6 inches to 10 inches in circumference, composed of a multitude of straw yellow lance-shaped scales, producing stout deeply-descending roots. Stems slender, 3 feet to 6 feet high, purple tinted, slightly downy when young, and producing a few roots from their bases under good cultivation. Leaves many, 5 inches to 6 inches long below, gradually becoming narrower and shorter toward the tip of the stems, lance-shaped, ascending and clasping above, rough on the under surface. Flowers three to eight, arranged in an umbel on short foot-stalks, nodding, much recurved, 3 inches across when fully reflexed, the petals often rolling themselves into two folds, fiery scarlet throughout, unspotted, or with a few dots deep in the tube. Substance very stout, the surfaces glistening. Anthers scarlet, spreading, styles straw-coloured. Flowers in July—August. Common in cultivation. Habitat Greece and the Ionian Islands.

Var. *Heldreichi*.—A form from the mountains, differs in its paler colouring, thicker petals, and more nodding flowers. The petals are often sparsely spotted below. Grown side by side with *L. chalcadonicum* for three or four years its distinctive characters disappear, and it must be considered merely as a wide geographical form of *L. chalcadonicum* with *L. carniolicum*. Common in cultivation. Flowers in August. G. B. MAULE.

(To be continued.)

NOTES ON HARDY PLANTS.

OSTROWSKIA MAGNIFICA.

THIS handsome plant, which may well be included amongst the finest of the perennials grown, is one of the latest botanical discoveries in Central Asia. Dr. Albert, son of the late Dr. B. Albert, director of the Imperial Botanical Gardens of St. Petersburg. It was found by Khanat of Dharwar in Eastern Bokhara, at an elevation of 7,000 feet above sea level, and named in honour of the Russian botanist Ostrowski. Botanically closely allied to the genus *Campylosiphon*, it is distinguished by its whorled leaves and numerous divisions of the calyx and corolla, and the cells of the ovary.

The illustration on page 381 was taken in 1900, of a plant growing at Kew on a shaded border. It consisted of seven strong stems, 5 feet high, each bearing several blooms, 5 inches across. Like a huge *Platyodon* in aspect, the flowers are of great beauty, being delicate purple with darker veins. The colour, however, varies slightly in different sections. The leaves are in distinct whorls of four, except the lower ones, which are opposite, being 4 inches to 6 inches long and broad proportion.

Seeds germinate readily in a cold frame, but takes a few years for the long, carrot-like roots to get to flowering size. These roots attain considerable dimensions in well-grown specimens, sometimes 3 feet in length. Exceedingly brittle, require great care in transplanting, the roots being often sufficient to break the pot. A deep, sandy loam is essential to the successful cultivation of this plant, but it does not succeed equally well in all localities, sometimes failing altogether. In the more favoured districts, where it obtains the necessary conditions, the stems

which are pale green dotted with red-brown spots, sometimes reach to a height of 6 feet to 7 feet, bearing numerous flowers. After growth is completed and the stems have died down the roots should be protected from excessive moisture during the late autumn. W. IRVING.

ERIGERON SPECIOSUS, VAR. GRANDIFLORUS.

THIS fine form of *Erigeron* or *Stenactis speciosus* does not appear to be widely known, but when its merits are recognised I think one may safely predict that it will become a general favourite. The older variety of *Erigeron speciosus*, namely, *superbus*, has long been admired in many collections, but this has a fault which considerably detracts from its value as a border plant. The flowers are large, and several being produced on a stem it is a difficult matter when one grows large plants or a mass of this variety to stake it so that a natural and pleasing appearance is obtained owing to the stems being too weak to support the flower-heads. The result is that many droop and become broken, especially in wet weather, but fortunately the variety *grandiflorus* is not affected in this way. The stems are much stiffer,

and are held perfectly erect with a very light stake, and though I have not noticed that the individual flowers are any larger, they are much deeper in colour, in fact, almost violet, and of far better form. Another great advantage is that it flowers continuously from spring till late in autumn, and the superiority of the newer form over *superbus* is very noticeable in a summer like the past.

Elstree.

A. E. THATCHER.

GALANTHUS "SPECIES FROM ALBANIA."

It is practically impossible to distinguish between the various *Snowdrops*, few in number though they are, which bloom towards the end of the year. Thus I am compelled with this one to preserve the name under which it came to me from Van Tubergen a few years ago, when it was offered as "*Galanthus* species from Albania, probably *octobrensis*." It is more robust than what I have previously had as *G. octobrensis*, but, like that one, it does not bloom so early as it did at first, and has, of late, generally bloomed far into November. This year absence from home prevented me from seeing it open, but on my return at the end of the

first week of December it seemed as if it had been open for a week or two. It is a better *Snowdrop* than some of these autumnal forms of *G. nivalis*, and looks pleasing at the base of the rockwork with its pure white blossoms, harmonising with the green of the mossy *Saxifrages*, the *Aubrietias*, and with its own dark green leaves, having a glaucous line down the centre which marks the greater number of the *Snowdrops* which flower before the New Year begins. It increases very slowly, so that it is hardly likely to become a plant for any but the few who welcome the *Galanthus* at any time, and particularly in the shortest days.

Carsethorn.

S. ARNOTT.

THE FLOWER GARDEN.

THE BEST CACTUS DAHLIAS FOR EXHIBITION.

VARIETIES of Cactus Dahlias, like *Chrysanthemums*, are now increasing in number, and naturally the number of sorts raised as seedlings in different parts of the country vary in excellence to some extent, according to soil and other matters. Looking, then, at the question from this point of view, it is plain to anyone that in giving the names of the best varieties one can only name them according to their merits in a particular locality, but at the same time I think that at any rate all the very finest are included in the following list, and if a few sorts are omitted it is only such as would have come in at the bottom. I have placed the varieties in practically alphabetical order.

Ajax.—A large flower, almost too much so, for exhibition, and now widely grown.

Britannia.—Still often exhibited; colour soft salmon pink.

Clara G. Stredwick.—Clear bright salmon, large, and of perfect form, of dwarf sturdy habit and wiry stem.

Columbia.—A lovely flower, but on a pendant stem, very telling when wired for exhibition; its colour is scarlet, tipped pure white; very striking.

Eva.—Purest white, almost too small for exhibition, but pretty when good.

F. H. Chapman.—A shy bloomer, but fine as a single specimen; blooms large, and petals very narrow and incurved.

H. J. Jones.—Delicate primrose, slightly shaded rosy pink at the tips, the shading being most noticeable in hot weather; strong, upright grower, and very free flowering, producing flowers of good form. One of the best.

H. F. Robertson.—Pure deep yellow petals, exceedingly narrow from tip to base; stem not very strong but of good length.

Ianthe.—Large flower of very fine form and distinct colour, yellowish ground, edged and shaded salmon; for exhibition one of the best, but stem pendant.

J. H. Jackson.—Huge flower, but heavy; indispensable for its colour.

J. W. Wilkinson.—Very well known; one of the finest when in form.

J. Weir Fife.—Deep purplish maroon, large flower.

Lord Roberts.—Creamy white; faults and otherwise now well known.

Mrs. J. J. Crowe.—Yellow, but otherwise similar to the flower just named.

Mrs. Mawley.—Also yellow, very large, and finest form; petals evenly incurved and exceedingly numerous; habit of the best, and stem strong. One of the finest.

Mabel Needs.—Scarlet, tinged with magenta; good incurving form and petal.

Mr. Seagrave.—A flower little known but good; colour rosy purple, and petals very narrow and of fair length.

Mrs. Winstanley.—Yellow at base, but scarlet for the most part; perfect dwarf habit and fine flower on strong, stiff stem. Quite one of the finest.

P. W. Tulloch.—Large flower, incurved form, colour salmon-red, tinged with purple; distinct.



THE NEW CACTUS DAHLIA FLORENCE M. STREDWICK. (Flowers white. Natural size.)

Phineas.—A tremendous flower, somewhat after the type of *Mrs. Mawley*, but rather heavier and deep crimson in colour; plant very robust.

Princess.—Pretty form and distinct colour, being a rosy violet; plants of best habit, and flowers deep.

Richard Dean.—Red tipped white flower, large and incurving in form, and carried on a very long wiry stem.

Raymond Parks.—Deep crimson, very large, deep flowers, and produced freely; strong, healthy grower, but stems not over strong.

W. F. Balding.—Beautiful colour, yellow in centre, gradually shading to bright salmon on older florets; petals abruptly incurved at the tips; robust grower.

A few additional sorts of great merit, but yet for one or more reasons supplanted by those already named are

Uncle Tom.—An old friend, almost black in colour.

Mrs. Carter Page.—Crimson.

Ringdove.—Delicate grower, but pretty colour.

Minnie West.—Yellow, tipped white, large flower.

Florence.—Yellowish orange, free flowering and of wiry growth.

I have not included two other sections as yet hardly prominent enough to claim to be very distinct; these are the *Pompon Cactus* and the *fancy Cactus*. Of the first group *Coronation* and *Peace* are excellent. *Coronation* is scarlet and of perfect form, tiny, narrow-petalled flowers on stiff stems, carried in abundance, and keeps a good centre even when not disbudded. *Peace* is not so good in this respect, but still a good start in white.

The other section, the *fancy*, is represented so far in *Alpha* and *Vesuvius*. The first is white, speckled and striped crimson, rather heavy in form, but a profuse flowering variety, whilst *Vesuvius* is a yellow ground, striped crimson, and of much better and incurved *Cactus* form. Besides the above two I noticed several new sorts of both sections in the novelties of this year at the various shows, notably at the London *Dahlia Union*, *Earl's Court*.

In naming a few of the finest *Dahlias* I have not thought it advisable to include any new sorts seen only as cut flowers for the first time this autumn, but some very fine varieties are no doubt amongst them, and a very striking feature was the advent of some of the more delicate tints in pinks, &c., so long looked for but till now unobtainable. Particularly amongst those I took notes of were *Rainbow*, *Amabel*, and *Mrs. J. W. Wilkinson*. A fine new white was to the fore in *Florence M. Stredwick*, whilst in salmon and yellowish shades fine flowers were *Gilbert*, light orange; *Mrs. H. L. Brousson*, salmon; *George Gordon*, yellow, shading to orange; *Lady Colin Campbell*, shaded yellow. Shades of crimson and red were best in *Premier*, deep red; *Oliver Twist*, crimson; and *Conrad*, terra-cotta. Other colours in notable flowers being *Violetta*, colour as name; *Lauretta*, yellow, shading to reddish pink; and in the new *fancy Cactus*, *Comet*, pink ground and crimson stripe; *Sirius*, brilliant yellow and scarlet; and *Hereward*, white and crimson. H. STREDWICK.

GARDEN PATHS.

ON first acquaintance with other people's gardens we do not consciously observe the paths. We never go home exclaiming "So-and-so has such a delightful garden, the paths are this and that."

Nevertheless we have been influenced by them; they have done much to make or mar our pleasure in it. The walks of a garden are, in fact, as indispensable as the flowers themselves, and they have even more to do with comfort.

Who can deny the irritating effect that some paths have on us? They may be too gritty, too soft, too shabby, too narrow, too many or too few. They can also be too new, but this is a fault that time will mend. Without going quite as far as a poet who wrote in this very magazine that the garden walk is "the only path that leads to joy," we must confess it is of great importance, and it behoves us to look well after it, and make it as much a "Primrose path" as possible.

In the South of England and Home Counties we are so used to gravel for making paths that we

loads being brought in, and we begin our troubles all over again.

I have seen crushed shells laid over gravel with pleasant effect. As a child, when taken out for walks along London garden paths thus treated, what a joy and wonder were the shells! Sometimes there would be whole ones. How did they get there? The kind of gravel path that is too high in the middle is terribly annoying. One must be an acrobat to walk upon it steadily. It is, of course, made so in order that water may run off it quickly, but this plan is not necessary if the path is well drained underneath, or in the dampest garden one can put gratings leading to the under drains.

If we happen to be in quarry countries we may make our garden path of stone. Stone may be used in many different ways, some of which are far more delightful than others. There is a kind of minced marble, very white and cold-looking, of which I have seen paths made in the North of England. They are neat, but they are tombstony. Much pleasanter to both eye and foot are the walks that are made of stone slabs laid either neatly or informally, just room enough between them for little scented tufts to grow haphazard. These paths seem almost to attract and draw down warmth and sunshine, and so do bricks and tiles. F. A. B.

(To be continued.)

CLIMBERS OVER GARDEN GATE.

THE accompanying illustration needs no description; it tells its own tale. The Vines and other plants, gracefully toning down the hard look of stonework, are in just the right proportion, so to say, and show how beautiful an effect may be gained when too much growth is not allowed. The illustration was prepared to teach this lesson.

AN ARTIST'S NOTE-BOOK.

NEW CHRYSANTHEMUM DOROTHY FORTESCUE.

ALTHOUGH everyone may not admire the type of *Chrysanthemum* represented by the variety illustrated, *Dorothy Fortescue*, many will admit that it has a boldness of form and an attractiveness that as a decorative flower place it far above the heads of some of the huge Japanese and stiff incurved blooms. This *Chrysanthemum* was shown by Mr. Page,

gardener to J. B. Fortescue, Esq., Dropmore, Maidenhead, at a recent meeting of the Royal Horticultural Society, and although it received no award, it created a good deal of interest on account of its distinctness. The broad, white florets are boldly and pleasingly disposed, and together with the rich yellow centre make up a striking flower. Mr. Page raised this variety from seed sent home to Mr. Fortescue, which was obtained from the gardens of the Emperor of Japan. The seed was sown early this year, so that no time was lost in producing a flowering plant by November. Mr. Page has numerous other seedlings, the result of seed



GARDEN GATE AT TYNNINGHAM, HADDINGTONSHIRE.
(The residence of the Earl of Haddington.)

almost forget how many other materials can be found. Gravel no doubt has much to recommend it. It is convenient, generally comfortable, and fairly lasting, but the gravel path is almost as bad as a planet, in being at its habitable best for such a short time during the whole period of its existence. When new, it is often so crude and glaring, sometimes so soft and puddley. We roll and harden it, and then the weeds begin to grow. I cannot imagine why all plants and seeds are so fond of gravel. I believe they like it better than mould. Then, just as the gravel walk is nice and mellow, the gardener says he wants to turn it "to make it look new again," the very thing we disliked at first, and this turning is only a prelude to some fresh

obtained from the same source, so that doubtless he will have other and perhaps even more striking varieties to show next year.

ROUND ABOUT A GARDEN.

HORTICULTURAL DYSPEPSIA.

THERE comes a day in every year when your garden, as a garden, disgusts you. It has been "done up" for some time in readiness for the winter. You know exactly where your bulbs are going to flower in spring. There are no weeds or "dead things." Everything which needs shelter is under shelter, and winter may do its worst. So you ought to continue to rejoice in your tidy flower-beds; but somehow you do not. There is such a lot of bare mould about them, and the paths are glistening with wet. A chill wind whisks the rain round unexpected corners; and the few flowers of late November are dragged or rain-splashed. Perhaps you are not feeling quite yourself this morning, so you prefer to regard your garden through the rain-specked window-panes, and to moralise gloomily upon its dark and uninviting features.

THE ROBIN TO THE RESCUE.

But you will not have been moralising long before a ruddy-chested robin pops suddenly up into the creeper outside the window, bobs its head and flirts its tail, and then stares fixedly at you with the confidence of an old friend, who has seen you in the dumps on previous occasions. How many of us have looked at robins some scores of times without noticing the colour of their foreheads. The robin on a Christmas card always has a scarlet waistcoat and a brown head; but look at the first cock robin that greets you this morning, and you will see that much of his cheery, human aspect is due to the fact that the front of his head is as ruddy as his breast, heightening, by contrast, the brilliance of his large, dark eye.

OPTICAL ILLUSIONS.

Another simple fact about the colouring of the robin, which is always hard to bear in mind, is that no part of its plumage approximates to "red" in hue. If by chance you find a dead robin, place a piece of red flannel or sealing-wax near its breast, and it always amazes one afresh to see what a dull shade of tawny yellow

this really bears. Thus Nature anticipated the optical illusion in the art of the old Dutch masters, who could paint an "interior" with a white table-cloth, or an exterior with a white horse, in such wise that though the impression was perfect you could, by placing a bit of white paper next the canvas, discover that both table-cloth and horse were dirty brown!

But the robin is off while you look at him, and shrill piping notes proclaim the distress of

the hedge-sparrow, whom he is relentlessly pursuing round the corner. The robin has not a large choice of birds which he can hunt from the vicinity of the food which you supply; but, like the doctor who shirked other ailments but was "death on fits," let him catch half a glimpse of an interloping hedge-sparrow and he will have him "out of that" with promptitude and despatch. As you press your nose against the cold window-pane to see whether he caught the

hedge-sparrow this time, a blackbird, of the sootiest, with bill carved of rich amber, cries "Chacker, chacker, chacker, chacker," and scurries on low wings over the lawn into the shrubbery. He had been sidling round the Yew bush by the porch towards the bird-table when you suddenly came

into view. But you need feel no concern on his account. The blackbird is so familiar



CHRYSANTHEMUM DOROTHY FORTESCUE.

(Natural size.)

Shown by J. B. Fortescue, Esq., Droghmore (gardener, Mr. Page),

at a recent meeting of the Royal Horticultural Society.

with the sound of his own alarm notes that, if other birds show no apparent concern at his chatter, he is sometimes the first to return to the scene of terror, as perky and confident as though he had not been scared for months.

QUICK-CHANGE GUESTS.

But you need not wait for the return of the blackbird; for, before you have had time to withdraw your objectionable countenance, a blue tit has alighted in the midst of the food and is sampling everything as hurriedly as a railway passenger lunching at Swindon. And no wonder. There is a flicker of wings, as, instead of the blue tit, there is a great tit pecking away at a fried crust. Presently it occurs to him that, if he took the crust to a branch of the Honeysuckle overhead he could manage it better, and, scarcely has he left the table than, from nowhere in particular, the blue tit is back again. At the same moment a cole tit arrives at the opposite corner, but they have scarcely thrown themselves into defensive attitudes and swallowed a mouthful, than the great tit, tiring of the crust, drops it to the ground and himself to the table. Off go the two smaller tits as if the whiff of his wings blew them into space, but he has hardly had a peck at anything before he suddenly vanishes also, and a thrush occupies the centre of the table.

THE THRUSH'S MISTAKE.

Catching sight of you, the thrush suddenly becomes a graver image. Absolutely motionless, with beak tilted at an angle of 45° and his large eye fixed full upon you, he might be posing for a photograph, and he remains thus so long that you begin to feel sure he must recognise you for a harmless plaster cast stuck in the window, when with a chatter of alarm he is off. No doubt it is the thrush's rôle to trust to his russet and dappled colouring to escape notice, and only to take flight when he is fairly convinced of danger. But you might have killed him half a dozen times while he was staring at you, and you regret his scared departure because he is such a charmingly bucolic person, with his brown coat and well-filled spotted waistcoat.

A CURE FOR THE DUMPS.

No need to grieve even for the thrush, however. Once in every half hour he will return to the bird-table, and you will not wonder at his winter plumpness when you observe the size and number of his mouthfuls. Besides, the robin, who has chased the hedge-sparrow into the next robin's beat, is back again with a sharpened appetite, and, bless my soul, here is the hedge-sparrow again! More alarms and excursions, more tits, more everything in varied sequence, with interludes of chaffinches and starlings. Other birds come too, at times, but those named will usually be the stock half dozen or so of birds which, like a pantomime array of six supers, occupy the stage as with the passage of a conjuring host. You may recognise every sixth warrior of the array by the hole in his stocking, but the illusion is otherwise complete, and you cannot watch the birds of your garden for one damp, dismal morning without seeing them do something that you did not know they did, nor without forgetting how damp and dismal the morning is. "*Similia similibus curantur*" says the old saw; and the antics of the blue tits may safely be recommended as a remedy for the blues.

E. K. R.

[On page 424 in the present issue an illustration is given of Mme. Alfred Carrière Rose over an old tree, in which there are nesting boxes for the tits, and, as there mentioned, it is interesting to watch their movements.—Ed.]

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

RUBUS ROSÆFOLIUS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Referring to the note of Mr. C. Wolley Dod on *Rubus roesae-folius* in *THE GARDEN* (page 332), it may interest you to know that this plant has had a diversified and entertaining history in America. It has seldom been mentioned as a decorative plant or one fit for the uses of the landscape gardener. But a few years ago some of the less scrupulous and conservative nurserymen got hold of this species and advertised it widely under the name of Strawberry-Raspberry. While I think that most of them did not say so, they allowed the impression to prevail that the new plant was a hybrid, and that the Strawberry and the Raspberry were its parents. It was highly recommended for its fruit, which, though edible, is disappointing in flavour. After the plant had lost its novelty, therefore, it fell into considerable neglect, which has only recently been partially broken by a revival of interest in it at the Massachusetts Horticultural Society. At this society some very fine plants and fruits have been exhibited this summer under the name of India Raspberry, a name which seems to me to be apocryphal. The plant is in truth rather useful as an ornamental one; and the fruit when stewed or made into preserves or tarts is really excellent. It is fairly hardy in Massachusetts, where many plants fail which can be grown nicely in the latitude of London.

Massachusetts, U.S.A.

F. A. WAUGH.

HORTICULTURAL SHOWS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In a recent issue of *THE GARDEN* Mr. Coomber calls attention to the monotony and often uninteresting appearance of horticultural exhibitions, those devoted to fruit more particularly. I am sure that his views will be largely supported, for there is no doubt that much of what he says is true, not only with regard to fruit shows but flower shows also. It is time some innovations were attempted, so that we might get away from the interminable tables of dishes of fruit, stands of flowers, and plants in pots. It is always to the interest of the executive to provide for the public a display that is attractive and pleasing as a whole, as well as with regard to the individual exhibits; in fact, probably the former is really the more important. It will hardly be denied that the majority of those who pay to visit horticultural shows are directed there largely by a superficial, not a real, interest in flowers and fruit; they like to see displays of these products, and take a delight in such a beautiful sight as a well-arranged flower show presents. To them, therefore, the aspect of the show as a whole is a most important matter.

Perhaps Chrysanthemum shows are the worst offenders. What can be more unpleasing, or even ugly, than long rows of large Japanese blooms or stiff petalled incurves down the full length of a hall? The latter, when they are arranged upon the flat boxes or boards, have often been compared to mop-heads; and it does not require much imagination to find a resemblance. At two of the most important provincial Chrysanthemum shows, viz., Edinburgh and Hull, this year exhibition boxes were entirely dispensed with, vases having been substituted, resulting in a great improvement in the pictorial aspect of the displays as a whole, and, as has been pointed out in *THE GARDEN* on several occasions, enabling the flowers to be judged on their merits with regard to their usefulness to the gardener; for after all, what is the real value of a flower whose chief use is for exhibition purposes? Comparatively few can afford to grow them for exhibition only. It is to be hoped that this practice of substituting vases for boxes will extend and eventually be universally adopted.

Mr. Coomber refers to the use of plants and flowers as adjuncts to an exhibition table of fruit, and there is much to be said for their extended use. Such displays of fruit as are provided for at the annual autumn show of the Royal Horticultural Society should be encouraged at provincial exhibitions; taste and skill in arrangement count for a good deal, and those who have seen the exhibits of Messrs. Bunyard, Rivers, Spooner, Cheal, Cannell, and others will have a lively recollection of their beauty and attractiveness. The effective arrangement of flower shows on the Continent has several times been referred to in *THE GARDEN*, and a similar method advocated at home. So far as I am aware, however, no attempt has yet been made to depart from the practice of exhibiting plants and flowers upon tables instead, as is the case on the Continent, of displaying them in groups upon the floor. This might not be practicable to the same extent here as abroad; but it is certain that the method might be introduced with advantage both to the pockets of the promoters of the exhibitions and to the delight and pleasure of the visitors.

A. P. H.

DAMPING OF VIOLETS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—One of the most difficult matters to contend with in some gardens where Violets must be grown in quantity during the winter months is a fungus which runs with great rapidity over the surface of the soil and ruins the plants wholesale as it spreads. All kinds of supposed remedies have been put forward from time to time. We have suffered in these gardens very much in damp seasons like the present. We tried a number of experiments from time to time—lime, powdered charcoal, flowers of sulphur, burnt refuse in a dry state, and many other things—and although these certainly checked the spread of the fungus it was only a partial cure. The disease soon spread again after a few damp days, and these remedies had to be repeated often during the winter.

For the past two winters I have adopted a simple plan which has proved most effective, and although the present season so far has been a most trying one for Violets in frames I have not seen one decayed leaf. My plan is simply to surface the whole of the soil over with silver sand as soon as the Violets have been planted; not an inch should be missed. The sand is placed well around the crowns of the plants and a little shaken into the centres. I have also tried two of the frames with an equal mixture of finely sifted coal ashes and silver sand, and so far with equally good results as when treated with sand only. Silver sand absorbs a quantity of moisture during the night and very quickly parts with it during the day, consequently there is very little condensed moisture on the foliage or glass in the morning. The coal ashes absorb well also, but do not dry so quickly, and I fear that on very damp, dull days may not answer so well as the sand; of course, finely-sifted road sand would answer very well no doubt if it could be obtained pure, but this is difficult; there is often a large percentage of mud mixed with it. So far I can thoroughly recommend this as a preventive against damping.

Cirencester.

T. A.

ORCHIDS.

ORCHIDS IN GREATER MANCHESTER.

AS a commercial town Manchester is in many respects unique, and for area and business can compare with any other in the world. This so-called Cottonopolis has probably no rival in the culture of Orchids. Since their first introduction to cultivation, the Manchester kings of commerce have grown them with unrivalled success as the records of horticultural history will prove. The collections of the past formed by Mr. Samuel Mendel, Mr. George Hardy, Mr. Thomas Statter, Mr. Heine, and Mr. Fallowfield were world-famous. These were the days of giants—at least, in Orchids—and the huge specimens exhibited

by the Manchester growers of those days are never-to-be-forgotten triumphs of cultural skill. Such magnificent specimens of Orchids had never before been seen, and are not to be found now, "more's the pity," for such plants, when exhibited, made a sensation.

Since then the culture of the Orchid has been steadily growing, but in quite another direction. Collections are not the rule now, but selections. No trouble or expense is spared by the Manchester Orchid lovers to ensure the well-being of the plants in which they take so great an interest. Moreover, their possession establishes a certain common bond, and as a rule a kindly generous rivalry springs up between the different enthusiasts. Space compels these notes to be limited; in fact, during my short stay in the Manchester district it was only possible to visit a small number of the collections, and of those visited only briefly descriptive notes can be given.

Compared with London, Manchester may be described as a comparatively small central city, extending into and connected by tram or rail with numerous suburbs and outlying towns. It enjoys a fairly pure atmosphere, but subject more or less to the black, smoky fogs inseparable from populous manufacturing centres.

One of the first collections visited was that of Samuel Gratrix, Esq., West Point, Whalley Range. Here is to be found a wisely-selected collection of all that is really excellent in *Cypripediums*, *Odontoglossums*, *Laelio-Cattleyas*, *Cattleyas*, *Lælias*, and their hybrids. At this season of the year *Cypripediums* are the most strongly represented in flower, and in this collection *Cypripedium insigne* Sanderæ, *C. i. sanderianum*, *C. i. Luciani*, *C. i. Dorothy*, *C. i. sanderianum giganteum*, and *C. i. Harefield Hall* var. are not evidenced by single plants, but in some cases by as many as a dozen healthy masses of each of those enumerated above—well grown, clean, healthy, vigorous specimens, a source of pleasure to their owner and a credit to the able head gardener, Mr. George Cypher. It would be impossible to enumerate here all the varieties of *C. insigne* and the many other hybrid *Cypripediums* in flower, but among the best mention may be made of *C. Transvaal* superbum, a stately hybrid between *C. rothschildianum* and *C. chamberlainianum*. The rich, cherry-purple colouring of the pouch is very pronounced. *C. Niobe* magnificentum, a form well worthy of the varietal name, its neat shape, daintily lined colours, and tall stems rendering it one of the finest of the *C. fairieanum* crosses; *C. giganteum*, a very rare and distinct sort, bearing a bold flower, the green tinted dorsal widely margined with white, pouch and petals polished as in the best forms of villosum. *C. Eos* superbum (*C. Charlesworthii* × *C. niveum*) a dainty and exquisite little gem, not large but perfect in shape, of a soft, pinky red, suffused with a darker shade in the centre of the upper dorsal. *C. arthurianum pulchellum*, *C. Leonidas*, *C. Tityus*, *C. pitcherianum*, *C. leeanum virginale*, *C. eismanianum*, *C. leeanum magnificentum*, *C. albertianum*, and *C. leeanum giganteum* were in flower, and represented by very fine forms. In addition to the yellow insignes, specially remarkable were *C. i. bohnhofianum*, a grandly shaped flower, the dorsal sepal suffused with rich chocolate-brown, surmounted by a ray of green and bordered with white; *C. insigne* West Point variety is a very charming form, certainly one of the best; *C. i.*

gratrixianum and *C. i. George Cypher* are two very fine ones; Hardy's variety of *C. insigne aureum* was also represented by a finely-developed specimen, and many others of which space forbids enumeration in this brief note. *Cattleyas*, *Lælias*, and *Laelio-Cattleyas* form a wonderful collection, and are, as a matter of course, a specially strong feature, of which details may be given later. In the cool house a specially fine plant of *Odontoglossum nobilior* was in bloom. All the other plants are in a thriving condition, *O. Luciani* and the extra fine gems of *O. crispum* vars. being in strong force, while the numerous unflowered hybrid *Odontoglossums* are in rude health.

A small but superb collection of *Lycastes* are special favourites of Mr. Gratrix. These plants are well cared for, and in grand health. The superb *L. Charlesworthii* is now in bloom, with its

with vinous red, one of the best of its class. A grand fairieanum cross, named *Princess*, was in fine condition, similar but much superior to *C. Juno*, and also to *C. calloso-fairieanum*. It has been raised from *C. Mme. Coffinet* × *C. fairieanum*, and the colouring is remarkable. *C. Stanley Rogerson* is a striking flower, with a rose and crimson-coloured upper dorsal.

C. insigne Chantinii × *C. albertianum* is a very handsome kind, the finest of the *C. albertianum* class; it bears large plum-purple spots, again exemplifying the advantage of using the best parents for hybridising. *C. buchanianum superbum* is the best variety I have ever seen. There is a comprehensive and magnificent lot of the best forms of *C. leeanum*, together with a similar selection of varieties of *C. insigne*, including the Harefield Hall variety, *Sanderæ*, *sanderianum*, *Luciani*, and a

new and extremely handsome form—*Queen Elena*. To take notes of all the many beautiful things in Mr. Rogerson's collection was impossible in the short time at my disposal. His *Cypripedium* house was full of beautiful blossoms of varying shades of colour. The plants were vigorous and healthy. A walk through the *Cattleya* and *Odontoglossum* houses gave evidence of the same careful selection of the best procurable kinds. The *Odontoglossums* were a revelation to the writer, and the quantity of superb varieties contained in this collection is prodigious. These are under the care of that good cultivator, Mr. Blumley.

My next visit was to Fyntesfield, the residence of Mr. Fred. Hardy, and here I found a long house quite full from end to end of all the best *Dendrobiums*. Probably no collection of *Dendrobies* can compare with this, excepting that of Sir Trevor Lawrence, Bart., certainly no collection in the North. Here, too, are huge quantities of grand specimens of *Lælia anceps* in all the known varieties, and a superb lot of *Odontoglossum crispum*, which at the time of my visit were undergoing a thorough overhauling in potting and rearrangement. At Fyntesfield an immense house was a perfect picture of beauty with hundreds of fine varieties of *Cypripediums* in flower, including the indispensable *C. insigne* Sanderæ and the yellow varieties of *C. insigne*, together with fine forms of *C. montana* and a dozen or more plants of Hardy's var. *aureum*. Mr. Hardy's head gardener grows *Cypripedium bellatulum album* remarkably well, and some fine plants of this albino, crossed with *C. insigne* Sanderæ, are now showing bloom. Mr. Hardy has many fine crosses. I must not forget to mention the excellent varieties of *C. leeanum* at Fyntesfield, including that remarkable one *C. l. staffordianum*. Increased interest is being taken in the Orchids here, of which there is a large and fine collection.

JOSEPH GODSEFF.

(To be continued.)

CYPRIPEDIUM INSIGNE HAREFIELD HALL VARIETY.

AMONG numerous varieties of *Cypripedium insigne* which have from time to time made their appearance, the majority of them afterwards to be forgotten, *C. i. Harefield Hall* has always remained prominent. It is always admired whenever shown on account of its bold and distinct markings and rich colouring; it has survived while scores of others have been raised, exhibited, and forgotten. The flowers are of large and striking form, the



CYPRIPEDIUM INSIGNE HAREFIELD HALL VARIETY.

rich, deep magenta-coloured blossoms. Mr. and Mrs. Gratrix both take an equally enthusiastic interest in their wonderful collection, and many beautiful plants bear the names of these worthy patrons of horticulture. The collection of *Dendrobies*, that was some time ago dispersed, is now being reformed, and the plants already show the cultural skill of Mr. Cypher.

The collection of Mr. E. Rogerson at Oakdene, Withington, amply repaid a visit. Here, again, very good taste has been exercised in making a selection of *Cypripediums*, *Odontoglossums*, *Cattleyas*, especially the albinos, which were strongly represented. *Cypripedium Para* was the first flower to catch the eye. This is a new hybrid from *C. bellatulum* × *C. Charlesworthii*, a very charming cross, with a bold, shell-like flower, richly dappled

dorsal sepal having a broad margin of white, and being heavily spotted with chocolate-brown upon a pale green ground. The petals and the pouch are yellowish green, veined with a darker green and suffused with rich brown. At a recent Drill Hall meeting this Orchid was splendidly shown by Mr. Alexander, Orchid grower to Captain Holford, C.I.E., Westonbirt, Tetbury, one plant bearing no less than eight flowers.

GARDENING OF THE WEEK.

KITCHEN GARDEN.

CARROTS.

ASOWING may now be made in a frame placed on a bed of tree leaves and stable manure, or the same kind of material may be put into a pit. Young Carrots are always appreciated, and the produce from seed sown now will be doubly so, as this year's roots will then be getting past their best. The material should be turned twice or thrice before using it to allow the rank ammonia to pass off. It should also be well trodden as the work of building into a neat bed proceeds. About 6 inches of sifted soil, fairly rich, may then be put on, and the whole allowed to settle before sowing. The stump-rooted varieties are invariably sown for early forcing, therefore a greater depth of soil is not needed. The French Forcing and Carter's Golden Ball are excellent for this sowing. The soil should be brought up to within 6 inches of the glass and be lightly trodden, rake the surface even, and draw drills 1 inch deep and 6 inches apart. Sow thinly and evenly, and cover with some finely-sifted soil. Radishes can be sown thinly between the rows if desired; they can be drawn for use before they attain sufficient size to hinder the growth of the Carrots. As soon as the seedlings appear through the soil admit air freely when the weather allows.

GARDEN FRAMES.

Any of these not required for other purposes for some time to come may well be utilised for forcing and forwarding various vegetables, herbs, &c., for when placed upon a good bed of fresh stable manure and tree leaves in equal proportions they are as well adapted for the purpose named as the most elaborately-appointed structure. If the frames are out of repair it is no matter, provided they hold together and that the glass is whole for throwing off cold rain and snow. The material can be well packed round the sides, and the beds must be re-lined as the warmth declines.

PEA STICKS.

The order should be made out for these, as well as stakes for Beans, &c. They are more lasting and altogether better when cut early in winter before the sap is on the move. During severe weather these can be sharpened and sorted into lengths suitable for Peas of different heights, tied in neat bundles and stored.

BURNT GARDEN REFUSE

is of great value for many kinds of vegetable crops, especially on heavy land. The plots intended for Peas may receive a good dressing at this time, and be trenched or deeply dug. The rubbish fire should be kept burning until the whole garden has been thoroughly well-cleaned of leaves, weeds, and decaying vegetation.

Stoneleigh Abbey Gardens. H. T. MARTIN.

FLOWER GARDEN.

BORDER CHRYSANTHEMUMS.

THIS has not been an ideal season for these, but on light soils and in sheltered situations many of them have done well. Nothing can equal these for brightening up the beds and borders during the autumn. Some of the earlier sorts were rather later than usual coming into flower, but they came just in time to take the place of many things that had been spoilt by the drenching rains and high winds of early September. Many of the later kinds were a mass of blossom until the early

part of the present month. I would strongly recommend all lovers of flowers, whether they possess large or small gardens, to grow border or outdoor Chrysanthemums, and I think all who love this autumn-flowering favourite will be more than gratified with the results. Many of the varieties are sufficiently hardy to stand the winter in some parts of the country, and I have found from experience that the best results are obtained by propagating them annually. The roots should now be lifted and parted into small pieces, and potted or boxed up in a suitable compost. This should be thoroughly porous, and the pots or boxes well drained. They are best wintered in a cold frame, or, failing this, plunge them in sifted cinder ashes, or dry leaves, in a sheltered position, and give protection in severe weather. In very cold districts the late-flowering ones will need the protection of a wall to ensure success.

MONTBRETIAS.

These valuable summer-flowering plants deserve far more attention than they usually get. We often find them growing in large clumps, with few spikes of bloom, and these small and insignificant. To grow them well, the chief point is to keep them thin, and so they must be divided every year. This may be done at any time before the ground is frozen. The safest and best plan is to lift them annually and winter them in boxes; the foliage should not be cut off until the spring, and they should not be kept in dry sand or they are apt to die off. When all are boxed off they should be placed together in some sheltered spot out of doors, and covered with a foot or so of dry leaves or other litter, enough to ensure their safety from frost. At the end of March they may be planted out anywhere, letting the bulbs be at least 6 inches deep. Treated in this way they will bloom much more freely. There are now many varieties in cultivation, some of them scarcely worth growing, but the following are among the best, and are worthy of a place in any garden: *Crocsmiaeflora*, *Pyramidalis*, *Solfaterre*, *Auricole*, and *George Davison*.

GAULTHERIA PROCUMBENS.

This is one of the most interesting rock plants we have. Just at this time of the year, and when fully exposed, instead of in shade as usual, and covered with its red berries, it forms one of the prettiest effects that can be seen among dwarf plants on rockwork. This plant can take care of itself in any peaty soil, but to succeed well with it an annual mulch of rotten leaf-mould and a little silver sand, with some Peruvian guano, will be found very beneficial.

Ashwellthorpe, Norwich.

T. B. FIELD.

INDOOR GARDEN.

THE propagation of the Chrysanthemum is now an important matter with the gardener, therefore, as old plants pass out of flower, they must be cut down to within 8 inches or 10 inches of their bases, and be placed in a light cool position that will favour the growth of stout robust cuttings. These should be taken when they are 3 inches long. They strike freely as a rule when four cuttings are inserted round the inside of a 3-inch pot previously drained and filled with a light sandy soil and surfaced with silver sand. Water the cuttings through a fine rose to level the sand, and allow them to drain for half an hour, when they should be placed in a close small case or under a bell-glass, placed inside a house where a temperature of 55° to 60° can be had. The usual attention will be necessary, such as admitting a very little air to the case occasionally and wiping the moisture from the inside of the glass until the cuttings are rooted, when more air will be necessary.

EUCHARIS AMAZONICA.

Where a stock of this handsome flowering bulb is grown, a bed of tan or clean Beech leaves should be made up in a house where the plants will not be too far from the glass, and as soon as the heat rises to 68° or 70° the pots may be plunged to the rim, and, even should the temperature of the bed advance to 80° no harm will be done. An atmospheric temperature of 64° to 68° should be main-

tained, and a light syringing overhead given them about 10 a.m. On very cold days, if the temperature is low, the syringing should be omitted. Keep the plants moderately moist at the roots, but it must be borne in mind that plants when plunged do not so rapidly become dry as those growing on a stage or a bed.

Before being plunged the plants should be carefully looked over for mealy bug, which frequently infests *Eucharis*. The general collection of stove plants will now require careful attention as to watering. All plants infested with insect pests must be thoroughly cleaned by washing or dipping in one of the many infallible remedies now advertised. Wash the pots, and if the plants have been standing on beds of ashes or leaf-soil, remove all the surface of the beds and renew them with fresh material.

PALMS

require a good supply of water at the roots all the year round, and even at this season clear liquid manure should be given them. It often occurs that some plants of the stronger growing species have to remain in pots of a limited size for a number of years, and as a consequence they become yellow. In such cases remove as much of the surface soil as possible and top-dress them with good loam, in which a fourth part of dry cow manure and a fair proportion of Clay's have been incorporated, which must be rammed in firmly. It will also be necessary at this season to go over the collection of Palms for the small brown scale which is so troublesome to them. Lay them down singly on clean mats and syringe them sharply, while a man holds the fronds in position, with water at 110° to 120° playing sharply on every part affected with scale. Afterwards the scale can be easily sponged off with soapy water.

Wendover.

J. JAQUES.

FRUIT GARDEN.

PEACHES AND NECTARINES.

WITH a hazy kind of atmosphere, through which the sun cannot penetrate, the forcing of a tree like the Peach must be carried on with great care and patience. In mild weather the temperature best suited to this valuable fruit (45° at night and 55° by day) can be maintained almost without fire-heat, but under colder conditions 5° lower will be safer figures to work upon until brighter days set in and the flower-buds get well advanced, and show by their plump, robust appearance that the most critical stage in forcing has been safely tided over. In proportion to the diminution in the day temperature let syringing be reduced, as too much moisture is apt to injure the buds, but keep the atmosphere in a nice growing state by damping the pipes and borders and by turning the fermenting material at short intervals. If plants of any kind occupy the early house, see that they are kept clear of the trees, and fumigate as often as may be needful to secure freedom from aphids before the flowering period. Ventilate the house on all favourable occasions, and, if possible, leave a chink of air on all night, but avoid draughts of cold, frosty air, particularly when the blossoms begin to unfold and the wood buds burst into growth.

PEACHES IN POTS.

Where the number of permanently-planted Peach houses is limited, and the earliest is perhaps planted with good old sorts which are beaten in point of time of ripening by modern varieties, but still hold their own with something to spare in quality, it is a good plan to take the first crop from pot trees plunged in or placed over fermenting material in light, efficiently-ventilated, span-roofed houses. To ensure success, take sorts like *Amadeus's June*, *Alexander*, *Hale's Early*, *Early Grosse Mignonne*, and *Stirling Castle*, which ripen in the order named. *Cardinal*, *Rivers' Early*, and *Lord Napier* Nectarines should be potted up and grown into fruiting trees under glass before they are taken in for forcing. We prefer the compact maidens with plenty of side shoots from the union of bud upwards, and as Peaches are not improved by being cut back, all that is needed is firm potting in 10-inch pots, and pruning back all the de shoots

to a single bud when they begin to break into growth in the spring.

HARDY FRUIT.

The mild, damp weather which has been so favourable for pruning and nailing will have held out inducements to many to postpone such work as top-dressing and mulching until walks and borders are in a better state for wheeling manure and compost; but so important an operation must not longer be neglected, as the timely application of a good covering to newly-planted or root-pruned trees cannot be over-rated. Unfortunately, the winter dressing of hardy trees is much neglected; many troublesome insects are allowed to rest in the bark and in the walls, from which they emerge almost before the unfolding of the earliest buds in spring.

Madresfield Court.

W. CRUMP.

THE FRUIT GARDEN.

FRUIT TREE PRUNING.

MR. TALLACK, in your issue of the 5th inst., has drawn attention to an article I had the pleasure of writing on the above subject in *THE GARDEN* of August 22 last, at the same time condemning the system of pruning I then advocated in favour of a system which he recommends, and, I presume, practises. The article in question was written with special reference to small gardens, in which it is desirable on account of limited space to confine bush and pyramid trees to moderate dimensions, as the following short quotation from the article will show:—

"The remarks I am about to make refer more particularly to bush and pyramid trees, which it is desired to keep within moderate limits in somewhat small gardens. Taking an ordinary bush tree as an example, the time has now arrived to shorten the young shoots of this year's growth. The leading shoots at the apex of the main branches should have one-third their length cut off, and the lateral shoots growing out of the sides of the branches should be cut to within seven leaves of their bases. Many amateurs are very keen on knowing why it is necessary to cut the branches back in this way. To one gentleman who asked this question I was able to give an illustration of the value of the practice by showing him long, barren branches on many of his trees quite innocent of fruit buds or growth of any kind, and that in the middle of his trees, where fruit should be abundant, the result of neglecting to adopt this practice. These branches were left their whole length, with the result that a few buds only, at the apex of the shoots, broke into growth, leaving the best part of the shoot—the base and the middle—barren of fruit or foliage for all time. It is to cause the furnishing of every branch in the tree with abundance of fruitful buds that the adoption of this plan is recommended."

I do not, however, quote this fact in order to imply that the recommendation of the method there advocated is applicable only to gardens of small extent. On the contrary, as long as it is a question of the summer pruning of bush and pyramid trees only (I say nothing at present of orchard tree pruning), the system I propose, in my humble opinion, is unquestionably the best, and, moreover, as far as my experience and observation go, it is the system practised by all experienced and competent growers, not only in this country but in the Channel Islands and in France. Your correspondent will probably have visited the Channel Island fruit gardens. If he has not I hope he may have the pleasure of doing so



A PEAR TREE PRUNED ON THE "RESTRICTION" SYSTEM.

before he is much older. By following the method indicated growers there are enabled to grow three or four specimen trees of good size on the same area of land as would be taken up by one of the trees grown on the let alone, discharge-the-gardener sort of system which he advocates. As bearing on this question, it must not be forgotten that these expert growers are not riders of hobbies, but keen commercial men, depending for a living on the result of their labours in the shape of heavy crops of the highest quality fruit, and how well they succeed is only too apparent by the displays of their fruits we see in such large quantities in English fruiterers' windows.

That the system of pruning I have endeavoured to describe is a successful one is further illustrated by the fact of its general adoption for the pruning, not only of bush and pyramid trees, but also of orchard house

trees, trained Pears, Plums, Cherries, &c. on walls, and even Gooseberry and Currant bushes. The system is to pinch or otherwise shorten the lateral growth of the main branches, and allowing moderate leading shoot extension. As far as I understand the method Mr. Tallack recommends, it is to give the leading shoots of the main branches of bushes and pyramids unlimited extension without any shortening whatever, and, I presume, the same with the lateral growth, as he says nothing to the contrary. As the leading shoots of a Pear tree in vigorous health will frequently make a growth of from 1½ feet to 2½ feet in length in a season, and as he asserts that every bud from tip to base of this long branch will break and develop a shoot, I leave your readers to judge of the hopeless muddle and tangle of growth the tree would be in by the end of the season, even after taking the

precaution which he recommends of thinning out here and there a branch.

Up to now I believe it has been acknowledged among cultivators of hardy fruit that the free admission of light, heat, and air in abundance among the branches of fruit trees is one of the most potent influences in bringing about their fruitfulness. I submit that trees grown on the method advocated by Mr. Tallack would be all but strangers to this influence. With regard to the illustration I gave of a tree having many branches of the previous year's growth void of shoots and fruit-buds in consequence of the branches not having been shortened by one-third their length, your correspondent claims that this was not the cause at all, but due to something else, as also he asserts that trees pruned on the system advocated in my letter "never did and never will bear fruit." For my part I lay no claim to be able to divine causes at a distance better than those who have opportunities of judging on the spot. I would also remind my critic that assertions are not arguments.

As a witness that trees grown in the way I have indicated do bear heavy crops, and that regularly every year for many years, I would point out to my readers the accompanying illustration of a Pear tree grown on this system. The witness is only a silent one, but there is an old saying, and a true one, "that which cannot speak cannot lie." This tree is about twenty years old and about 15 feet high, every branch is loaded with fruit from base to apex, many of the branches are borne down by the weight of the fruit, as can be seen from the illustration, and they are so disposed that full advantage is taken of the influence of heat, light, and air.

I claim that this is the true and best extension system of training bush and pyramid trees, where it is necessary to confine the trees to moderate limits, as is always the case in ordinary kitchen gardens. Trained in this way every main branch forms a cordon of itself, as completely as a single cordon tree does on its own roots; there is an annual extension of all the main branches, according to their strength, of from 6 inches to 12 inches, and in fully-developed or even partially-developed trees, there are from ten to twenty branches. An increase of from 7 feet to 15 feet of branch growth is thus obtained every year, which should be enough to satisfy even the most ardent extensionist.

OWEN THOMAS.

MISCELLANEOUS.

CROSSING AND HYBRIDISING.

(In reply to E. J. L.-E.)

So far as the actual process is concerned, crossing and hybridising are identical. The first term is, however, applied to the crossing of different varieties of one species, or, for constitutional reasons, the flowers on different plants of the same species, while the second is applied to crosses between different species or genera; otherwise the terms always mean the simple transfer of the pollen grains from one flower to another. In systematic crossing it is clearly necessary to prevent, as far as possible, the ordinary transference of pollen from one flower to another by wind, insects, or other agencies. What is wanted, in fact, is to secure, in the first instance, that no previous fertilisation has taken place, and to make sure that the pollen applied is of the right kind. With these two provisos we may be quite sure when seeds are formed that they are due to a cross as designed. This, on the face of it, seems simple enough, but when we come to practice we find that flowers vary so infinitely, not only in their structure as regards the relative positions of the

pollen grains on the stamens and the stigma, which they must reach in order to fertilise the ovary, but also in the times when the pollen is ripe and the stigma ready to receive it, that no hard and fast rule can be laid down, and we must be guided by general principles. Let us see, then, what these principles are, and, for simplicity's sake, we will take a familiar flower as an example, say, the Fuchsia. Here we find a standard type. Ignoring the other parts of the flower, we see by the figure

an incipient seed-vessel at A, from which there passes right through the flower a long slender filament with a knob at the end, B, which constitutes the stigma. This is the female portion of the flower, and at C we see a cluster of shorter filaments, each of which is also tipped with, at first, a solid-looking knob, which later on becomes a mass of powder, i.e., the pollen. This is the male portion of the flower. The stigma at B, soon after the flower is fully opened, develops a glistening sticky surface, and to fertilise the seed all we have to do is to let the pollen fall, when many grains will be caught by the sticky knob immediately below. Each grain of pollen so caught will then burst and send out a tiny tube, which will penetrate between the cells of the stigma filament and continually lengthen until it arrives at A, where the incipient seeds are which are thus fertilised. This done, the flower fades and drops off, leaving A and its filament B behind it. The filament shrivels, but A swells, and in due course becomes a berry full of perfect seeds. Now, taking the Fuchsia still as an example, we see that it is quite an easy matter to secure cross-fertilisation on clear lines. If we desire to fertilise A with another variety we have simply to snip off the stamens at C, wait until the stigma at B is glistening, and then apply with a little brush, or even the finger tip, some pollen from the other variety concerned. We may then be quite sure, when the ovary or seed-vessel A matures its seeds, that they must contain the elements of both varieties, and we may therefore confidently expect, when they are sown and produce plants, that such plants will show combinations of both parental types.

In this example we have the underlying principle of all cross-fertilisation, and we see that the first thing to do is to remove from the vicinity of the young stigma all pollen which we do not desire should affect it, since with flowers it is usually, though not invariably, a case of "first come first served." Nature, however, helps the hybridiser to some extent in this, since cross-fertilisation being beneficial to the constitution she often arranges that the stigma shall not be ready to receive the pollen at the same time that the pollen grains of the same flower are ripe; but there are many

exceptions, and these can only be ascertained by particular study of the special flowers concerned. One particular point to be remembered in this connexion is that the other parts of a flower, the petals, &c., are of little or no importance as regards artificial crossings; they may be mutilated or cut away to any extent for the purpose of preventing self-fertilisation without detriment to the reproductive apparatus. They serve, indeed, merely as insect lures, and as fertilisation is largely done by insects these should be kept as much as possible at a distance.

There are many flowers, such as Begonias, which bear female and male flowers separately. These are easily discriminated by the former being attached to a seed-vessel, as well as by the presence or absence of pollen, and here, of course, the female flowers can be protected by the removal of the male flowers in the bud stage. Many of the Pea tribe have a knack of self-fertilisation even before they open, and are therefore difficult to deal with, except by experts, who cut open the young flowers and remove the stamens before they are ripe.

However, as we have already said, the hybridiser or crosser can only succeed by making in each case a careful study of the flowers concerned. No two species behave in exactly the same way, varying, as we have seen, in the relative positions of stamens and stigmas and in their times of maturing; but bearing in mind the main principles involved in the study of the Fuchsia, common-sense will be a guide in most cases. The best plan is to begin on a small scale, keeping the plants concerned apart from all others, and out of the reach of bees or other insects which are apt to upset one's calculations by unnoted visits. The next essential is to start with well marked, i.e., distinctly characterised parents, so that success may be clearly evidenced in the offspring; and, finally, crossing is done to no purpose unless effected with some definite end in view in the shape of improvements on recognised lines. Cross, for instance, a sparse flowering but otherwise fine Fuchsia, to stick to our example, with a very floriferous, pretty, but small one, so as to correct the faults and combine the virtues of both. This effected, something good is done; but to cross for the mere sake of crossing is lost labour.



BLOOM OF FUCHSIA.

(For explanation of letters see text.)

SOCIETIES.

NATIONAL ROSE SOCIETY. ANNUAL GENERAL MEETING.

THE twenty-seventh annual general meeting of the above society was held at the Hotel Windsor on Thursday, the 10th inst., Mr. C. E. Shea presiding. The following members were present: The Revs. F. Page Roberts, R. Fowler, A. Foster-Melliar, Dr. Masters, Dr. Shackleton, and Messrs. Alfred Tate, B. E. Cant, C. Haywood, Alec. Dickson, H. V. Machin, E. Harkness, G. Burch, G. Moules, Harcourt P. Landon, George Bunyard, George Paul, Cecil E. Cant, W. D. Prior, Lewis S. Pawle, W. H. Burch, C. C. Williamson, V. B. Johnstone, W. H. Cooling, Keppel Gifford, Robert Basewell, Edward Holland, Clifford Chadwick, F. H. Cliffe, E. W. Bowyer, J. T. Strange, J. Stevens, Conway Jones, W. J. Jefferies, G. Gordon, W. Boyes, O. G. Orpen, E. Mawley, Courtenay Page, E. E. Moynaux, A. R. Goodwin, G. Speight, Mahlon Whittle, T. Riggs, H. G. Mount, H. J. Spooner, J. Mattock, H. S. Bardsley, J. E. Rayar, Frank Cant, A. Christie, G. W. Cook, Ernest Smith, E. I. Cook, J. Bateman, G. W. Piper, G. Caselton, J. Dennison, T. W. Flintoff, A. T. M. Pison, A. Prince, T. B. Gabriel, and W. Gallon.

Messrs. H. P. Landon and George Bunyard were elected scrutineers of the ballot. The following report of the committee and financial statement was then read:

"REPORT OF THE COMMITTEE FOR THE YEAR 1903.

"The report for the past year, which the committee have now the pleasure of presenting, must be regarded as, on the whole, a most encouraging one.

"The Rose season of 1903, like that of the previous year, proved extremely backward, and, as the date of the Metropolitan show, July 1, was again unusually early, it appeared likely, only a week before the exhibition, that there would be few Roses out in any part of the country in time for it. Fortunately, with a change to warmer weather, the prospects became more favourable, and the tents were, after all, fairly well filled. As, however, might have been expected under such unfavourable conditions, the general quality of the flowers and the number exhibited fell short of what one naturally expects to see at this, the leading Rose show of the year. The number of exhibition Roses staged was even smaller than last year—indeed, smaller than in any year since 1893, or for ten years.

"The committee gratefully acknowledge their indebtedness to the Treasurer and Benchers of the Inner Temple for again allowing the show to be held in their gardens. They

also tender their best thanks to the President and Council of the Royal Horticultural Society for so considerately placing their staff of assistants at the society's disposal on the show day. Both of these concessions are warmly appreciated by all in any way responsible for the success of the society's Metropolitan exhibition.

"As to the future prospects of that show the committee feel convinced that when once this grand display of Roses comes to be regarded as an established annual institution it will be much more largely patronised by the general public than at present. In a huge city like London three years is scarcely sufficient time to allow of an exhibition of this kind, held on only one day in the year, to become generally known. The committee have pleasure in recording that at the Temple Rose show this year there was a gratifying increase in the number of classes for Roses staged in other ways than in the regulation boxes; indeed, only half the classes in the schedule were devoted to Roses staged in the latter way, whereas only five years ago the box classes claimed four-fifths of the schedule.

"The northern show, which took place at Glasgow on July 15, proved in all respects a magnificent one, and the resources of St. Andrew's Hall were taxed to the uttermost to provide room for the exhibits; 3,970 blooms of exhibition Roses were in all staged, which is, with three exceptions, a greater number than at any previous northern exhibition held by the society. Every credit is due to the committee of the West of Scotland Rosarian's Society, and particularly to their new secretary, Mr. John Lindsay, for the arrangements made on that occasion. These were rendered unusually difficult owing to the extent of the show, and to its being held away from Helensburgh, the home of the society.

"Early in the year a subscription was set on foot in order to raise a fund in memory of that keen rosarian and generous friend of the society, the late Mr. Charles J. Grahame. Through the kind exertions of the Rev. G. E. Jeans and Captain Ramsay, secretary and treasurer of the fund, the sum of £52 11s. 6d. was collected. The first Grahame Memorial Prize was competed for at the society's Temple show in July last. It is with much regret that the committee record the death during the past year of Mr. J. D. Pawle, a vice-president of the society and one of its earliest and warmest supporters.

"FINANCE.

"Considering that the takings at the Temple Rose show were only about the same as in 1902, and that £82 had to be paid for the printing of the new edition of the official catalogue, which was issued to members last year, the present state of the society's finances must be regarded as highly satisfactory. The total receipts, including a balance of £14 19s. 3d. from the preceding year, amounted to £1,179 7s. 11d., and the expenditure to £1,126 0s. 11d., leaving a balance of £53 7s. in the treasurer's hands. Consequently there has been this year no occasion to make any call upon the guarantee fund. With a view to obtain the nucleus of a reserve fund, no provincial exhibition will be held by the society in 1904. Previous to 1901 there was no necessity for a reserve fund, but since the society began to hold an independent show in the Temple Gardens the need of such a fund has been keenly felt. In the opinion of the committee this will be a much more satisfactory plan than relying from year to year upon an annual guarantee fund. In the latter case any deficiency that may arise has to be made good by the guarantors alone, whereas with a reserve fund this would be defrayed, as it should be, out of the general funds of the society. There has again been during the year a very gratifying increase in the number of members. In 1900, the year before the Metropolitan show was first held in the Temple Gardens, the number of members was only 584, whereas now there are over a thousand members on the society's books, showing a total increase in the three years of 72 per cent.

"ARRANGEMENTS FOR 1904.

"The Metropolitan show will again take place, by the kind permission of the Benchers of the Inner Temple, in the Temple Gardens, on Wednesday, July 6. There will be no provincial exhibition next year, but an autumn Rose show will be held in conjunction with the Royal Horticultural Society in the new Horticultural Hall of that society, on Tuesday, September 20. This is a new departure, and should the season prove favourable a most interesting and attractive exhibition of autumn-flowering Roses may be anticipated.

"MEMBERS' PRIVILEGES.

"Members subscribing one guinea will be entitled to six shilling tickets, and subscribers of half a guinea to three shilling tickets of admission to the society's exhibition in the Temple Gardens. In addition to this, each member will receive an admission ticket for the society's autumn Rose show to be held in the new Horticultural Hall of the Royal Horticultural Society in Westminster. Members joining the society for the first time in 1904 will also receive copies of the following publications: The new edition of the 'Official Catalogue of Exhibition and Garden Roses,' the new and revised edition of the 'Hints on Planting Roses,' the 'Report of the Conference on Pruning and Exhibiting Roses,' the 'Report on the Constitution of Rose Soils,' the 'Conference Report on the Decorative Use of some Garden Roses,' and to a symposium on 'How to Grow and Show Tea Roses.' All members will receive, during the course of the coming year, a new treatise on pruning Roses, which will be prepared by a special committee of experts appointed for the purpose. Members alone are allowed to compete at the shows of the society. Members will be entitled to purchase tickets for their friends for the Temple Rose show at reduced prices.

"The committee convey their best thanks to the donors of special prizes, the keen competition for which adds so much to the attractiveness of the society's Metropolitan exhibition, and especially to Captain Ramsay for the handsome cup he has now given for six consecutive years as the leading prize in one of the most popular classes in the show. The local secretaries have again done good service, the most successful being Mr. C. Barber, Mr. H. S. Bartlett, Mr. H. E.

Molyneux, Rev. R. Powley, and Mr. J. Wakeley. For the largest number of fresh subscribers obtained by any one member during the past year the committee gratefully acknowledge their indebtedness to Miss Willmott, a vice-patroness of the society; in fact, during the last three years Miss Willmott has succeeded in adding to the list no fewer than fifty new and influential subscribers."

BALANCE SHEET, YEAR ENDING NOVEMBER 30, 1903.

Receipts.		£	s.	d.
1902.				
Dec. 1. Balance at bankers	..	14	19	3
Subscriptions	..	626	16	8
Affiliation fees and medals from affiliated societies	..	64	10	6
Advertisements	..	19	16	0
From West of Scotland Rosarians' Society	..	80	0	0
Special prizes	..	85	16	0
Proceeds of Temple show	..	262	16	0
Sale of publications	..	10	18	6
Guarantee fund—balance of call not paid last year	..	8	10	0
For proposed treatise on "Chemical Manures for Tea Roses," from A. Hill Gray	..	5	5	0
		£1,179	7	11
Expenditure.		£	s.	d.
Printing, stationery, and advertising	..	131	14	3
Postage, telegrams, and sundry expenses	..	54	16	5
Expenses Temple show	..	397	1	5
Glasgow show	..	6	10	0
Medals	..	22	19	10
for affiliated societies	..	47	4	0
Prizes Temple show	..	220	17	0
Glasgow show	..	150	5	0
Purchase of plate for prizes	..	59	13	0
Assistant secretary and accountant	..	35	0	0
Balance at bank	..	53	7	0
		£1,179	7	11

The chairman, in moving the adoption of the report and financial statement, thought them extremely satisfactory, and eulogised the services to the society of Mr. Mawley and Mr. Haywood, hon. secretary and hon. treasurer respectively. He suggested that a telegram be sent to Mr. D'umbrin, as in previous years, just to let him know they were thinking of him. In referring to the work of Mr. Mawley, Mr. Shea said that not only to the Rose society was Mr. Mawley a valuable helper, but he was now president of the Meteorological Society, and though they were indebted to him for many things, not the least was his influence with the clerk of the weather, who kindly provided them with a fine day at the last Temple show. They were very obliged to Mr. Mawley. The chairman referred to the death of Mr. J. D. Pawle (a keen rosarian and a man of many kindly acts), whose loss they much regretted. The Temple show was not altogether a success, but there was a splendid show at Glasgow, which in a measure made up for it. The report says the takings at the gate were the same as the previous year, but if the largely increased membership is taken into consideration (it had increased in three years from 584 to over 1,000), this is much more important than it seems at first sight. It was not safe always to rely upon guarantors, a reserve fund is much more satisfactory, and the committee are to be congratulated upon their endeavours to establish one. Mr. Shea referred to the autumn show to be held next year in the new Royal Horticultural Society's Hall, for which he said it would be a sort of "house warming," as he believed it would be the first exhibition of importance to be held there. The show-board was gradually disappearing, and he hoped in time it would be such a rarity as not to be seen outside museums. The chairman said that the hon. treasurer had been asked by the auditors to make entries of separate items in separate books, and also they would like a cash book to be used. Mr. Haywood quite understood that this might be necessary in a business house, but the auditors did not know the amount of work that their proposals would mean if carried out. Mr. Haywood had said that if all details were now to be entered separately, and the method adopted by his father and himself for many years was to be done away with, he would be obliged to relinquish the position of hon. treasurer.

Mr. Cooling seconded the resolution that the report and financial statement be adopted, and it was carried unanimously.

The Rev. R. Powley then proposed that the thanks of the society be given to the officers and other members of the committee for their services during the year. This was seconded by Mr. Mount, and carried unanimously.

Mr. Mawley, in reply, said that it was always gratifying to the officers and committee to find that their efforts were appreciated. On an average members of committee had made five out of a possible eight attendances. The work of the secretary usually came in for recognition, but that of the treasurer was not so evident. The Rose Society was to be congratulated upon having such an excellent secretary as Mr. Haywood. Mr. Mawley said that Mr. D'umbrin was still in good health, and took a keen delight in the affairs of the society.

Mr. Haywood, who also replied, thanked the meeting for their kind expressions. He went on to say, with reference to the proposal of the auditors as to keeping the accounts more in detail, that he did not wish at all to interfere with their suggestions, and although he had not the least wish to sever his connexion with the National Rose Society, he had neither the time to enter all items in detail. If the members were content that the accounts be kept as they always had been, then he should be very pleased to continue as honorary treasurer.

Mr. G. W. Cook proposed the following alteration in By-law 5: "That the first part of By-law 5 be altered so as to read: 'Notice of any proposed alteration, either of these bye-laws or of the regulations for exhibitors, must be given in writing to the secretary at least two weeks before a

general meeting, and no bye-law or regulation shall be altered except at a general meeting of the society.'"

Mr. George Paul seconded this resolution, which was carried unanimously.

The Rev. J. H. Pemberton then proposed "That regulation 1 be altered so as to read 'That the society shall hold one or more Metropolitan shows in each year, and provincial shows when practicable. The date of the Metropolitan show shall not be earlier than July 6.' Referring to the memorial circulated among members of the society, the object of which was to urge holding the Metropolitan show not earlier than July 8, he said it had been widely signed. It must not be forgotten that this was the National Rose Society, therefore it ought to provide for visitors such a display as they could see nowhere else. There had been only two favourable reports of the Metropolitan show, and they were in 1897, when Roses were ten days earlier than usual, and in 1900, when the show was held on July 7. Reports of northern shows, on the contrary, had been very good. At the Glasgow Rose show on July 19 last year, Mr. Pemberton said he had never seen finer Roses than were shown there. The chairman had said that July 12 (which, supposing July 6 were not available, presumably would be the alternative date) was too late for the southern show, but forty members out of sixty-six had signed the memorial. Mr. Pemberton quoted extracts from letters. Dean Hole wrote "I always thought the Metropolitan exhibition was held too early, and heartily sympathise with your suggestion that it shall not be earlier than July 6." From the Rev. W. Wilks: "I entirely agree with you; my Roses (in South London) are not at their best until July 11 to 15." Neither of these gentlemen was an exhibitor, so could not be accused of selfish motives. Other extracts were also read. "Why should some of the best Rose growers be left out?" asked the speaker. "Next year there is to be no northern show, so what will happen to the northern growers?" He sincerely hoped this resolution would be carried.

Mr. W. J. Jefferies seconded the proposition.

Mr. E. Mawley then proposed the following amendment: "That the Metropolitan show be not held earlier than July 3 or later than July 9." Mr. Mawley said he would not have brought this amendment forward if, at the last annual meeting, Mr. Pemberton's resolution had been carried by a large majority. He with many others did not think that "not earlier than July 6" would mean as late as July 12. For instance next year, Ulverston Rose show was on July 10, and Manchester on July 11. He thought that Mr. Pemberton had gone too far. His proposal would be a good one if we were always destined to have late seasons, but the last two had been the latest for twenty-seven years with one exception. Mr. Mawley thought they ought not to lose their heads on account of one or two late seasons, but try to arrange an average date. The visitors also ought to be considered; the later in July the show is held, the nearer it is to the end of the London season.

Mr. Frank Cant seconded the amendment. He remembered the early shows of the National Rose Society at South Kensington, the first Tuesday in July, and afterwards at the Crystal Palace on the first Saturday in July. These dates had answered admirably for twenty years, so why was this change sprung upon them because of two bad seasons? How about the small amateurs, the backbone of this society? They as a rule have not many maiden plants, therefore have almost entirely to depend upon cut backs for their flowers. "Are cut-back plants at their best or over by July 6," he asked. (Voices "Over.") Fifteen or twenty years ago, exhibitors depended chiefly upon H.P.'s, which are rather later than the H.T.'s and T.'s now largely grown. We can dispense with H.P.'s now to some extent. (Voices "No, No.") The gate money at the Temple show must also be considered. If the show is held late, many of the would-be visitors will have left. He thought it an unwise step to take to make the Metropolitan exhibition so late as July 11 or 12, as it might fall. Supposing the season were an early one, what then would happen? By July 8, 9, or 10 garden Roses would be past their best, and they are an important feature of the display.

Mr. George Gordon read extracts from reports of Metropolitan shows held by the society during the last twenty-one years, to show that all the best displays had been held on July 7, the latest of any of the dates. He thought the society ought to take means to insure an exhibition of the highest quality, and to do this such dates should be adopted as would bring this about. He was sorry not to be able to support the amendment.

Mr. O. G. Orpen, who supported the amendment, thought Mr. Gordon's figures added weight to Mr. Mawley's proposition. All the finest shows he mentioned had been held not later than July 7. How could a small amateur (growing less than 1,000 plants) exhibit Rose blooms so late as July 12, especially in an early season? It seemed to him to be entirely a matter of legislating for H.P.'s upon maiden plants. If Mr. Pemberton's resolution was adopted the Royal Horticultural Society would hold their Holland House show each year a few days before the National Rose Society, and they (the Royal Horticultural Society) would have the Rose show of the year.

The Rev. A. Foster-Melliar said this question about the dates of the Metropolitan show had long been a worry. Both he and the late Mr. Grahame had written pages about it. Since 1882 this show had never been too late for him, almost always too early, and only once just right, he added viz., in 1894. He thought that the early dates had not worked well, the trade exhibit much better at the later provincial shows, as a rule, than at the Metropolitan show. The rev. gentleman said he was neither particularly north nor particularly south, and his Roses were always at their best about July 12. He did not think that the exhibition Roses should give way to the decorative or 'garden' varieties. "I am told," he concluded, "that the small growers who have to rely upon cut-back plants find that these are over by July 12. This is because they do not cut them back hard enough."

Mr. Boyes asked if it was the small amateurs who made a successful show? "People will not go to see a box of

six blooms when they can see a box of thirty-six," he said.

Mr. George Paul thought "that if the Metropolitan show could be held every year on July 6, there would be no differences at all." He said that the increased use of the Briar stock instead of the Manetti had tended to make Roses bloom rather later. To hold a show about July 10 he thought would be hard on amateurs with cut-back plants only, and, after all, they were the backbone of the society. For the sake of the few champion growers and the trade exhibits they should not fix a date unfair to smaller growers. He thought Mr. Mawley's amendment better than Mr. Pemberton's resolution.

A gentleman from the Midlands (a small grower) thought Mr. Mawley's suggestion the more reasonable. He said he could understand that after a late season there should be a clamour for a late show; it would be the reverse after an early season probably.

Another Midland rosonian said he very rarely had any blooms ready for the Metropolitan shows. He thought a day between July 5 and 9 would suit everyone.

Mr. Courtenay Page supported Mr. Mawley's amendment. He told Mr. Pemberton that his name had been erroneously subscribed as a supporter of the memorial.

Another speaker said it seemed to resolve itself into a battle between growers north and south. (Cries of "No, no!") He had tried year after year (in the Midlands) to grow Roses for the Metropolitan shows, but without success. "It seems to me," said this speaker, "to be a case of tweedledum and tweedledee." If July 9 or 10 were fixed it would probably satisfy both parties.

Mr. Alex. Dickson thought they ought to try and fix a date suitable for all, all ought to be able to compete on the same ground. July 3 and 4 were too early altogether for small growers in the north. He asked the southerners to give those living in the north a chance.

Mr. Bateman said after many years' experience he had found that the small growers' Roses were never ready till July 7 or 8, and even July 18 from cut-backs. He thought it time to hold the metropolitan show at a later date.

Mr. H. E. Molyneux said the question seemed to resolve itself into this: Which is the better alternative, to hold the show before July 6 or after July 9? as all were agreed that the intervening dates were suitable. If the show was held later than July 9 they stood to lose more than they would gain. The small exhibitors were the backbone of the society, and ought to be encouraged. At the last show there were as many as nineteen entries in one class for amateurs growing a small number of plants. He thought Mr. Bateman's position—upon a hill and cold soil—to be an exceptional one; these were not average conditions.

The Rev. J. H. Pemberton, in a final speech, said that the question of holding the show from July 9 to July 12 was not his argument. All he said was, do not have it before July 6, and then leave the matter to the committee.

Upon being put to the vote twenty-six hands were raised in favour of Mr. Mawley's amendment, and the chairman counted up to twenty-eight against. Taking the names of those present, we find that the attendance was sixty-two, therefore Mr. Pemberton's resolution was carried by a majority of ten.

Owing to the long time taken up by discussing the question of the date of the Metropolitan exhibition, the other items on the agenda, viz., "Result of the ballot for committee and officers for 1904," "Provincial exhibitions in 1905," and "Vote of thanks to the chairman," were not proceeded with.

ANNUAL DINNER.

This took place immediately after the annual meeting, and the chair was taken by Mr. H. V. Machin, who was supported by the majority of those present earlier in the afternoon. After the usual loyal toasts, the chairman, in a delightful speech, kindly, humorous, and sensible, gave the toast of the evening, "The National Rose Society." He briefly reviewed its history, and mentioned that the society and himself came into existence at the same time, namely, in the year 1859, and paid a warm tribute to the Dean of Rochester, the president, who a few days before had reached the age of 84, and a letter read by the chairman from the aged president breathed that splendid spirit of good fellowship and devotion to the Rose Society and rosarians which has been so characteristic of his long and busy and happy life. After some humorous and kindly references to Mr. Harman Payne's statement that the members of the society consisted of country parsons and old maids, he said he came very near the mark because he was a bachelor, but he was glad to find that Mr. Payne had been incorrectly reported when he was supposed to make the astonishing statement referred to. The chairman was glad to find that the first Roses in Mr. Mawley's analysis were raised by British rosarians. Not many years ago it was in foreign lands the new Roses were raised, but now the British rosarian could show that he, too, was capable of bringing new interest to the Rose garden through his untiring and intelligent efforts to get new sorts. He lamented the absence of Mr. D'Ombrain, but that never-to-be-forgotten late co-secretary sent his good wishes, and that he was with them in spirit that evening. The chairman warmly praised the unselfish work of the hon. secretary, Mr. Mawley, whose name was received with hearty cheers. If it had not been for his efforts the society would not be in its present position to-day, a strong organisation, in which all the members were working to promote its welfare. The society is prospering. There are now over 1,000 members, and a balance of £50 this year, against £14 last, and then Mr. Machin alluded to the events of the afternoon in altering the date of the annual exhibition. He is a northern grower, and the very early date is too early for the northern growers. This date, as our report will show, has been altered, and in defence of it the chairman said we all wish our Temple show to be a success, and as many members as possible to exhibit at it. He met a lady at the exhibition one year, who said to him, Mr. Machin, "Have you not brought any of your beautiful Roses?" "No," was the reply; "I have not got any. They are not in bloom." "Well," the lady replied, "I hope they will be by this time next year." The chairman insisted

in no uncertain voice upon the necessity of the society moving about and having provincial shows. It is simply a matter of ways and means, out of which we shall no doubt emerge in due time. The September show was a novelty. The chairman was very pleased to see it. It will bring out Roses never seen so fine before. We shall see the beauty of the H.P.'s in autumn. Warm praise was bestowed upon the publications, which, he said, were of the greatest possible value to the amateur, and it was a good sign that the decorative Roses were becoming so popular, and the prizes in the classes for these ought to be considerable. He hoped the changes would increase the vitality of the society. Several vice-presidents were mentioned by name, especially the Duke of Portland, his neighbour, who was a rosarian. The chairman congratulated Mr. Cecil Cant on his recovery from his illness. Hearty praise was given to the excellent treasurer, Mr. Haywood, and the auditors, Mr. H. E. Molyneux and Mr. Lewis Pawle.

Mr. E. Mawley replied, and said he was pleased to see such a good gathering, and a great treat to have Mr. Machin, the representative of the northern growers, in the chair, and to see so many that were not members of the committee present. Mr. Mawley said he well remembered the visit of the society to Worsley and Mr. Machin's hospitality. The chairman had a lovely garden of Roses, and he was interested in seeing that 180 members of the society lived in the north. The secretary thought the autumn show would mark a distinct era in the history of the National Rose Society. A few years ago the ambition of Mr. D'Ombrain and he was to get the membership to 500. Now it has been doubled. He wished Mr. D'Ombrain were there to-night, but he read a letter in which he sent his hearty greeting to all. It was most essential that every endeavour should be made to make the Temple show more attractive. There are not enough visitors. It was possible to have too many, as at the Temple exhibition of the Royal Horticultural Society, but about £400 would be sufficient to make it pay well. As good business men we should try to make the society financially sound. The provincial shows resulted in a loss. Our hands are held because there is no reserve fund, and we depend absolutely upon the subscriptions of our supporters. Our friend the weather has done harm. Mr. Mawley mentioned that he has been working for the society for over a quarter of a century, a long and wholehearted service in the interest not merely of exhibitors but of rosarians. In conclusion he hoped that on some future occasion we should have the presence of Mr. Machin in the chair.

The next toast was "The Horticultural Press," which was proposed in an excellent speech by Mr. George Paul, V.M.H., and replied to by Mr. George Gordon, V.M.H.

The Rev. J. H. Pemberton proposed "The Chairman." He said Mr. Machin was a representative of the country squire and of the northern growers. We must not restrict ourselves to the southern rosarians. Mr. Pemberton alluded to the kindness of heart of the chairman, and his interest in the National Rose Society.

The chairman, in response, was received with prolonged cheering. He said how great the pleasure was to come and meet his rosarian friends. He was pleased to see them from all parts of the Isles, especially Mr. Alex. Dickson, jun., from Ireland, whom he hoped would go on raising new Roses. He would like to see Mr. Dickson win a trophy with Roses grown and raised at Newtownards. A word of praise was given Mr. Mount of Canterbury for the Roses on the table, and the chairman said how greatly the lives of the aged and the sick were brightened by Roses, and hoped all in a position to do so would send flowers from their gardens.

The music was delightful, and supplied by "The Georgian Singers," under the direction of Mr. Harry Stubbs of St. Paul's Cathedral.

ROYAL HORTICULTURAL SOCIETY. DRILL HALL MEETING.

THERE was an excellent display at the Drill Hall, Westminster, on Tuesday last, Orchids, Begonias, Chrysanthemums, shrubs, hardy flowers, and fruit all being well represented. Cypripediums were especially finely shown.

FLORAL COMMITTEE.

Present: W. Marshall Esq. (chairman), Messrs. H. B. May, C. T. Drury, George Nicholson, W. G. Baker, James Walker, R. Dean, Amos Perry, J. F. McLeod, J. Jennings, W. Howe, G. Reuthe, C. R. Fielder, W. Bain, Charles Dixon, Charles Jefferies, Herbert J. Cutbush, Charles E. Pearson, R. C. Notcutt, H. J. Jones, W. P. Thomson, E. H. Jenkins, C. E. Shea, George Paul, and Harry Turner.

Perhaps one of the most remarkable exhibits ever seen at the Drill Hall was that of winter shrubs from Lord Aldenham, Elstree (gardener, Mr. Beckett). Not only was the group of extreme interest, but in its characteristic display gave an excellent idea of what may be intelligently accomplished by shrubs and their grouping in the garden landscape. Some of the more conspicuous were as follows: *Salix grandiflora* moschata, *Cornus sanguinea* variegata, the former with black the latter with scarlet bark; *Salix rubra*, with red bark; *Rosa rugosa*, with its densely prickly growth; flowering shoots of *Bambusa Metake*; *Salix incana*, a dark wooded plant; *Symphoricarpos vulgaris* (Snowberry); *Eonymus europaeus*, with scarlet fruits and capsules; *Salix laurina*, with dark wood, with *Cornuses* and other things. Silver-gilt Flora medal.

A large and comprehensive group of winter shrubs, conifers, and allied plants came from Messrs. Cutbush and Sons, Highgate. *Irises*, *Skimmia*, *Cypresses*, *Hollies*, and the like gave a capital idea of the wealth of beauty and interest in these plants at this season. The same firm also showed alpinas and other plants, in which the beautiful *Iris Vartani* and the white Hoop-Peticoat *Narcissus* were seen. Silver-gilt Bankian medal.

The group of alpinas in pans from Messrs. T. S. Ware, Limited, Feltham, was of great interest, as showing the winter garb of these plants. *Sempervivums*, *Sedums*, *Saxifragas*, *Heucheras*, *Shortias*, *Meconopsis nepalense*, *Gaultheria*, *Arabis lucida* variegata, *Muldenbeckia*, *Erio-*

gonum umbellatum, *Mesembryanthemum uncinatum*, *Sax. racemosa*, *Acenasa*, and others were in this unique lot, a whole table side being occupied by the well got-up pans. Gold medal.

A group of *Croton elegantissimus roseus*, C. Turnfordensis (a golden centre-leaved sort), and C. Golden Gem came from Messrs. T. Rochford and Sons, Broxbourne.

Zonal *Pelargoniums* from Messrs. Cannell were shown in their own good style, and, as usual, remarkable for brilliant colouring and fine flowers. Silver Flora medal.

Messrs. W. Wells and Co., Limited, Redhill, set up a group of *Chrysanthemums*, large flowered and small, single and double. Of the single kinds *Treasure* (golden yellow) and *Indicum* were noticeable. Thread-like varieties were also shown, and the late white *Princess Victoria* was good. Miss Emily Fowler, a new late golden yellow, is a capital sort. Silver Bankian medal.

Messrs. Veitch and Son, Limited, Chelsea, in addition to a long table of their winter *Begonias* in many sorts, showed *Gesnera* (*Negella*) *exoniensis*, a dark velvet-leaved plant, very attractive at this season. Silver-gilt Flora medal.

Mr. Hennings, The Gardens, Alexandra Park, sent a variety of *Chrysanthemums*, mostly decorative sorts, such as *King of Plumes*, *Mrs. Carter*, and others.

Messrs. W. Bull and Sons, Chelsea, showed a set of *Palms*, in which were *Phoenix corymbosa*, *Geonura*, *Livingstonia*, *Pritchardia*, *Calamus*, *Kentia*, and many more. Silver Flora medal.

NEW PLANTS.

Chrysanthemum Allman's Yellow (decorative).—As this is a dwarf plant 2½ feet high, with this undulating growths, bearing flowers of a rich, golden yellow, colour is very good, and the flower of useful size for day cut bloom. Shown by Mr. Allman, Rowhill near Darford, Kent. Award of merit.

Croton Turnfordensis.—This is probably the most Croton exhibited for some time. It is stated to be a seedling between the old *C. variegatus* and *C. Thomsonii*, latter being apparent in the broader leaves. The plant reminds one in growth and character of *C. C. Hawkeri*, &c., yet most distinct from all by the rich golden, almost orange, yellow seen in the centre of the leaf and surrounded by a margin of deep olive green. For of the hardy character of *C. variegatus*, it is the capable of the best cultivation in a low temperature. Comparatively we have here a plant of infinite ornamental and decorative subject, and heartily commend it to the notice of our readers. Shown by Messrs. T. Rochford and Sons, Turnford Hall Nurseries. Award of merit.

FRUIT AND VEGETABLE COMMITTEE.

Present: George Bunyard, Esq. (chairman), Messrs. J. Cheal, Henry Ealing, S. Mortimer, Alex. Dean, Edw. Beckett, Horace J. Wright, John Jacques, G. Kelf, J. Wilm, J. H. Veitch, G. Reynolds, F. L. Lane, W. H. Dean, G. Wythes, A. H. Pearson, G. Norman, J. Mahon, W. Poupard, and H. Somers Rivers.

C. Bayer, Esq., Tewkesbury Lodge, Forest Hill (gardener, Mr. W. Taylor), exhibited an excellent lot of fruit, Grapes, Apples, and one Pine. They were grown within five miles of Charing Cross. Silver-gilt Knightian medal.

Mr. C. Bellis, Fonthill Lodge Gardens, Forest Hill, &c., showed some Oranges. Pears were shown by Mr. Dean, Holland House Gardens, Kensington, and by Mr. Charles Ross, but no awards were made.

Mr. A. W. Hall exhibited some salad Potatoes. Mr. Beckett, Aldenham House Gardens, was given a Silver Bankian medal for some fine Allas Craig Onions.

NEW ORCHIDS.

Cypripedium leucanum var. *clinkaberryanum*.—This, the best variety of *C. leucanum*, was shown by Baron Schröder and given an award of merit. The dorsal sepal is large and beautifully marked with purple dots upon a white ground. This also was shown by O. O. Wrigley, Esq., Bridge Hall, Bury.

Odontoglossum Vuytkei vivicans.—A flower of handsome form, very heavily marked with chocolate-red upon a yellow ground. From Baron Schröder (gardener, Mr. H. Balthasar). First-class certificate.

Odontoglossum harriso-crispium ridens.—A large handsome flower marked with heavy bars of chocolate-purple upon pale green ground. The lower half of the large lip is white. From M. Vuytke, Ghent. Award of merit.

Cypripedium nitens wrightianum.—A well-formed flower; the dorsal sepal beautifully marked with dark spots upon rich green, and having a broad white margin. From O. O. Wrigley Esq., Bridge Hall, Bury. Award of merit.

Cypripedium insignis Sandersi, Oakwood variety.—This is a seedling from *C. insignis Sandersi*, and is distinguished by a faint yellow band above the greenish yellow blotch on the dorsal sepal, as well as being a bolder flower. Shown by Norman C. Cookson, Esq. Award of merit.

Odontoglossum crispum Marie.—A distinct flower of delicate appearance; the white ground is heavily blotched with light purplish red. Shown by Norman C. Cookson, Esq. Award of merit.

* * * Owing to pressure on our space the report of the Orchid committee is unavoidably held over till next week.

CARDIFF GARDENERS' ASSOCIATION.

THE fifth meeting took place at the Grand Hotel on Tuesday, the 1st inst., Mr. H. R. Farmer in the chair. Mr. R. Kitley, seedsman to Messrs. Garaway and Co., and representative of the Bristol Gardeners' Association, delivered an excellent lecture on "Seed Testing and Saving," explaining to the minutest particulars the best means to adopt in testing seeds and the best forms of froths and flowers to select seed from. The lecturer contended most emphatically that no doubt deterioration in constitution and disease, to a great extent, was due to lack of attention in selecting seed from the best sources. A good lesson was given on seed testing and best times to sow seed in this our changeable climate. The best thanks of the meeting were accorded Mr. Kitley for his excellent lecture.

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Extra strong for forcing, 15/- to 21/- per 100.

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CLIBRANS

New & Choice FRUITS.

WE append brief notes of a few new or recent fruits. Full particulars are contained in our TREE AND SHRUB LIST.

NEW APPLE "Rival," A.M., R.H.S.

A high-class fruit, equally good for dessert or culinary use. Strong grower and heavy bearer. Since we introduced this variety two seasons ago the demand for trees has been very great. Maidens, 1/6 each; Pyramids and Standards, 2/6 and 3/6 each; Trained Trees, 5/- to 7/6 each.

NEW APPLE "Charles Ross," F.C.C., R.H.S.

The result of a cross between Cox's Orange Pippin and Peasgood's Nonsuch. It possesses the rich flesh and flavour of the former, but is more than double its size. A superb fruit for dessert. Maidens, 2/6 each; 2-year Trees, 3/6 and 5/- each.

NEW APPLE "Edward VII.," A.M., R.H.S.

A splendid new late variety. The fruit will keep in excellent condition until June. Claimed to be the latest variety in existence. Good grower and free bearer. Maidens, 12/6 each; 2-year Trees, 15/- each.

NEW APPLE "Norfolk Beauty," A.M., R.H.S.

A first-class culinary variety in season from September to January. The fruits are of large size and very handsome, of a clear yellow colour. Maidens, 5/- each.

NEW DESSERT CHERRY "Noble,"

F.C.C., R.H.S.

A heavy cropper of good constitution and habit, producing large, firm, deep blood-red coloured fruits; ripens during July. Maidens, 1/6 each; Pyramids, 2/6 and 3/6 each; Trained, 5/- and 7/6 each.

NEW BLACK CURRANT "Boskoop Giant."

This variety is attaining wide popularity, its heavy cropping qualities together with its vigorous growth, freedom from mite, and the excellence of its fruit, mark it as one of the best varieties. One-year-old plants, 4/6 per doz.; 2 and 3-year-old plants, 9/- and 12/- per doz.

NEW BLACK CURRANT "Goliath."

We offer this variety this season for the first time, after having tried it in our nurseries for two or three years. We can give it our highest recommendation. The fruit is larger than that of any other variety of black currant, it is also a good grower and heavy cropper. One-year cuttings, 1/- each, 9/- per doz.; 2 and 3-year plants, extra strong, 1/6 and 2/6 each; 12/- and 18/- per doz.

NEW GOOSEBERRY "May Duke."

"Victoria."

Two excellent varieties, good growers and heavy croppers, remarkably early. One-year plants, 9d. each, 6/- per doz.; 2 and 3-year plants, 1/- and 1/6 each; 9/- and 12/- per doz.

NEW HYBRID FRUIT "Logan-Berry."

A new fruit that is undoubtedly destined to become very popular. The fruit is large, of a deep rich red colour, equally good for dessert or culinary use. The plant is of vigorous constitution and remarkably prolific. F.C.C., R.H.S., July 21st, 1903; 1/6 each, 12/- per doz.

NEW RASPBERRY "Excelsior."

Fruits of large size and exquisite flavour produced with the utmost freedom; they have the rare qualification of being entirely free from mite. Strong canes, 1/- each, 9/- per doz.

NEW RASPBERRY "November Abundance."

A new autumn fruiting variety. The fruits, of a deep red colour, are excellent in flavour. In season during October and November; 9d. each, 6/- per doz.

NEW STRAWBERRIES.

A descriptive and priced circular of all the new, choice and standard varieties of Strawberries, gratis and post free.

For a complete List of Choice Hardy Fruit Trees, Shrubs and Conifers, Roses and Rhododendrons, Hedge and Cover Plants, American Plants, etc., see

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ANSWERS TO CORRESPONDENTS.

Names of plants.—*Orchid for name, but letter lost.*—A very fine variety of *Cymbidium giganteum*.—*W. Phillips*.—1, *Cotoneaster microphylla*; 2, *C. Simonsii*; 3, *Retinospora plisera aurea*; 4, *R. squarrosa*; 5, *Juniperus thurifera*; 6, *Sedum dendroideum variegatum*, often met with in gardens as *Sedum zoldeum variegatum*.

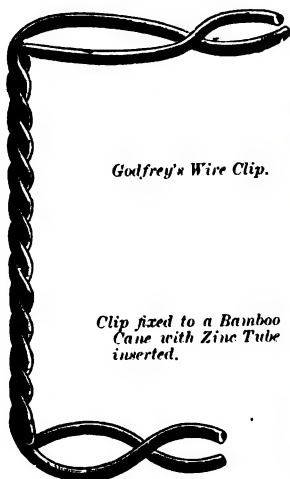
Primula purpurea (G. H. S. H.).—This wants a warm, sheltered nook. It is happy when planted against a stone in the rock garden, and the soil should be loam mixed with leaf-mould. As the plant suffers greatly from wet in winter, cover it with a bit of glass to keep the crown dry.

Dianthus callizonus (BEGINNER).—Your *Dianthus callizonus* is one of the most beautiful of rock Pinks. A well-established plant, throws up many flowers over 1 inch in width during May; they are bright rose colour, and of paler rose towards the centre, which is speckled with crimson. They are borne on short stalks, just above the dwarf deep green foliage. It is not difficult to grow, and prefers a peaty soil with the addition of a little loam.

Crab Apples (TRIMON).—Here is a list of very beautiful ornamental Crab Apples: Siberian, a very pretty tree with crimson fruits, and there is a yellow Siberian too; John Downie, Fairy Apple, Transcendent, and Dartmouth. These are amongst the most beautiful trees in the garden; they flower in May, are of graceful growth, and bear fruit through the autumn, whilst the fruits are prized for preserves and jellies. Crab fruits make a good sauce for game.

Salvia diseased (E. C. CLOUGH).—The *Salvia* leaves are attacked by red spider, a common enemy of *Salvia* under glass. These pests in all probability effected a lodgment on the leaves while the plants were still out of doors, and when taken under glass they, according to their wont, rapidly increased. Syringing on the under sides of the leaves will keep them in check, but, if your plants are not too large, the better way will be to dip them in some insecticide. A piece of soft soap the size of an egg dissolved in a pail of warm water is very suitable for the purpose.

Orchard house Nectarine trees in pots dying wholesale (A. G. B., North Finchley).—Our correspondent writes to the following effect: "I am sending you a root and portion of a Nectarine tree which is one of



Godfrey's Wire Clip.

Clip fixed to a Bamboo Cane with Zinc Tube inserted.

fifty-seven growing in an orchard house here. They are all dead or dying, and if you can tell me what has killed them I shall be very grateful." The further particulars furnished by our correspondent give us no clue which helps us to a conclusion as to this extraordinary catastrophe which has happened to his Nectarine trees, and we can only conclude there must be some local and special cause for their destruction. We have subjected the roots and stem to microscopical examination, and can find no cause justifying such serious results. The roots are in abundant quantities and healthy to all appearances, as also is the stem, and the branch growths of the past summer are well developed (for pot trees), and altogether, as far as the past season's growth of the trees is concerned, everything appears satisfactory. We sympathise with our correspondent, and regret we are unable to help to throw any light on the cause of the destruction of his trees.

Black Currant mite (H. J. STOBART).—I am sorry to tell you that the buds on the Black Currant shoot that you sent are undoubtedly attacked by the Currant mite (*Phytoptus ribis*). The best thing that you can do is to pull up the plants showing any affected buds and burn them. Various methods for destroying these mites have been suggested and tried, but none are really satisfactory. If the bushes are not badly attacked, that is if there are only a few swollen buds on each plant, then you might prune them very hard, and look them carefully over afterwards and remove any buds which may in any way be regarded with suspicion. Then spray the bushes with paraffin emulsion, and again just before the buds open in the spring. Give the ground a good dressing of hot lime. Look the shoots over from time to time and move diseased buds before planting any fresh bushes. Examine them carefully and reject any that have any swollen buds on them. Cuttings should never be taken from infested bushes.—G. S. S.

TRADE NOTES.

MESSRS. GARTON'S MAIZE GLUTEN SEED. CONSIDERABLE interest has been taken in the various exhibits of Messrs. Garton's Maize Gluten Seed. This product of Maize, now manufactured in England for the first time, has already found great favour for dairy and store stock, and for pigs. It is prepared from Maize by a mechanical process, no chemicals being used in its manufacture, and it contains more than twice the nutriment of the raw grain, the superfluous starch, which renders Maize so heating, being removed, as well as the moisture. Messrs. Pinnock Bros., of Mark Lane, are the sole agents for this food.

GODFREY'S PATENT HANDY CLIP TUBE-HOLDERS.

THERE has been found hitherto a difficulty to fix flowers (in vessels of water) in awkward places, such as altar screens, pulpits, pillars, mirrors, curtains, &c. The "Handy Clip" supplies the very thing so long desired, and will prove a boon in decorating churches, halls, and rooms in general. It is a simple arrangement by which a tube to hold flowers can be affixed in positions where it is not possible to drive a nail or otherwise fasten a support for flowers in water. Altar screens, pulpits, pillars, and mirrors can easily be

decorated without the aid of nails. A piece of string, cord, or small rope is tied around and suspended from any projection on which the "Handy Clips" can be fixed. By their aid curtains, draperies, &c., may be quickly fastened with flowers. A bamboo or any other stick or rod may be stuck among the foliage or other plants, or in a flower-pot of soil, and can be readily dressed with flowers. They only require to be used once for their merits to be fully appreciated, and their adaptability to many uses to be readily understood. The principle is a holder made of wire. The ring to hold the water tube is pressed, which causes the smaller ring to open. This open ring forms a grip, and when the tapering vase to hold the flowers, &c. is inserted, and pressed down, the grip is made firm. They are very quickly fixed and removed. It is made by Mr. W. J. Godfrey, The Nurseries, Elmouth, Devon.

GARDENING APPOINTMENT.

MR. SHUTLER, foreman at Aldenham House Gardens, Elstree, has been appointed head gardener to G. Rushbrooke, Esq., St. Georges, Amptill.

CATALOGUES RECEIVED.

Daffodils, Hyacinths, Tulips, Crocuses, Gladioli, Lilies, &c.—Messrs. Barr and Sons, 11, 12, and 13, King Street, Covent Garden, W.C.; Messrs. Little and Ballantyne, Carlisle.

CHRISTMAS DINNERS TO UNEMPLOYED.

WE are arranging again this year to give some thousands of Christmas dinners to unemployed, but respectable suffering poor, of East London in their own homes, and feel sure that your readers would like to have a share in the happy work. The severe weather brings terrible suffering into East End hunger-bitten families, in which frail little children are often crying for bread. To such, without some outside sympathy, Christmas Day will be, alas! a day of sadness instead of joy. Our large East End voluntary committee of ladies and gentlemen are willing again to carry out the happy unsectarian though arduous work. The public Christmas dinner distribution will take place at Latimer People's Hall, Bridge Street, opposite the People's Palace, on Wednesday evening, the 23rd inst. The enclosed annual statement, audited by chartered accountants, will, I think, tell its own tale. Fully relying on the kindness of your readers to help us to carry this Christmaside some sunshine into otherwise darkened East End homes.—Ed. JOHN W. ATKINSON, Claremont, Cavley Road, London, N.E.

* * The Yearly Subscription to THE GARDEN is: *Island* 15s.; *Foreign*, 17s. 6d.

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THE GARDEN

No. 1675.—VOL. LXIV.]

[DECEMBER 26, 1903.]

HOLLY IN THE WINTER LANDSCAPE.

HOLLY plays a most important part in our winter landscape. It is true that not one of our native evergreens could be spared from either hill or dale without a sense of grievous loss. Spruce and Pine, Juniper and Yew, and trailing Ivy—each has its distinct value, and each in its own way is most beautiful. But one and all of them are sad. We do not feel it when the glow of the summer sunset lights up the red stems of the Scotch Firs, nor when the murmur of the west wind croons softly in the Spruce boughs above our heads on a warm autumn day. We may even turn away from the dazzling colour of flower borders to the cool sylvan green of Juniper, or gladly take shelter from scorching noonday sun under the dim shade of some solemn Yew, and never once think of sadness. But reverse the picture, and recall how all these look under a gloomy November sky, with fog-clouds hanging low and chill over the hill-tops, and say if then we are not ready to confess that one and all are more or less funereal. Exactly the same effect is given by some of the evergreen trees of other latitudes. The "gloomy vegetation of the forest" at certain seasons at the antipodes has often been remarked; but we seldom realise, whether at home during winter or its corresponding rest time in milder climates, that it is the dead calm of arrested life all about us that holds us in its grip. Most evergreens betray it even more than deciduous trees, which, to a watchful eye, are never wholly asleep. Nor is this to be wondered at, for it is, in fact, owing to the more complete suspension of vital force during their resting time that conifers and other evergreen trees are able to hold their leaves. But, nevertheless, there is no dead calm about the Holly. Rude health and vigour is written upon it at all seasons, and the cheerful glint of its polished leaves and the red fire of its berries does more for our English landscape than we are apt to imagine. Like the "pink" of the fox-hunter it saves our English country side—and very often our sinking spirits as well—from over-much depression.

On a raw winter's morning, hanging about the covert side listening for the first whimper of hounds, have we not, many a time, hailed with positive delight some blazing Holly tree in hedge or hanger? The mere sight of its ruddy clusters has sent a thrill through the

chilled blood, and has given a touch of exhilaration which has served to shorten the irksome wait before getting away. If we have lived in a good Holly country some such experience has certainly been ours—at any rate, if we love Hollies as all good Britons should.

In no other country does Holly thrive as it does with us, and for that reason, if for no other, we should make it a main feature in our English landscape, encouraging it in those localities where it is naturally abundant, and planting and cherishing it elsewhere. The enthusiasm of our American cousins at the first sight of a genuine English Holly in full fruit should be an object-lesson to a "Britisher." It takes rank in their minds with all other old-world associations which to them are so sacred, but which, too often, only become precious to us when wide ocean separates us from them.

The good effect of Hollies in the home plantations was noted lately, but the advice to plant them might be brought still nearer home. The winter outlook from our windows is quite as important to us as individuals, if not more so, than the distant view. We surround our houses with Rhododendrons and all manner of exotic evergreens, and they all have, as we are most ready to acknowledge, their distinct beauty and advantages. We may, however, be suffering from a plethora of Rhododendron ponticum, for example, which year by year is rising into a dense wall and threatening to shut out light and air, and which gives a sense of oppression that must be lived in to be felt or understood; of course, a few strokes of an axe would clear the whole, but it is a cruel thing to have to do, nor can it be done without much thought and good judgment.

There never was sounder advice than that given by a recent writer in *Flora and Sylva* (see *THE GARDEN*, December 12, page 407) to keep Rhododendrons for middle distances. There they make a fine effect in the landscape, winter and summer. Hollies, on the other hand, where there is space enough for tree planting at all, may be stationed either near or far, and their effect on the outlook never becomes gloomy or oppressive.

Our forefathers were fond of planting belts of forest trees as a protection to their dwellings, or, maybe, they planted their dwellings within the sheltering embrace of trees already grown, for in many cases these encircling groves are more ancient than the buildings they surround. We can all call to mind some old-time manor house, shut in by gaunt, leafless trees, set, evidently with intention at the outset, rather

close together, but which, through neglect of later dynasties, have never been properly thinned out or allowed room for development. Who has not felt on occasion that the shelter afforded by such skeleton trees, tossing their lean branches against a leaden sky, is somewhat dearly bought, even on a winter's day, at the expense of ghostly gloom and damp depression? What a change for the better, under these and similar conditions, might follow a liberal use of hatchet and saw, and the careful grouping amidst the survivors of bright-leaved Hollies which have nothing morbid or creepy about them.

For the sake, then, of our English woodland scenery, no less than for the outdoor surroundings of our English homes let us take all the care we can, both in the conservation and the renewing of our most precious English evergreen—the Holly.

MR. ALFRED RUSSEL WALLACE.

IT is not permitted to every man that at the age of eighty he shall still have the strength and sound vitality of mind and body that shall enable him to take keen pleasure in the making of a new home and garden.

It will no doubt be a satisfaction to all readers of *THE GARDEN*, as it assuredly is to one of their number, who a few years ago, until his change of residence to a more westerly county, was his near neighbour and enjoyed the privilege of his friendship, to know that such is the case with this grand worker in the regions of science, whose name we hold in reverence and honour as one of the greatest of living Englishmen.

All that Mr. Wallace has done for science, all that he has endured of toil and danger, the many troubled waters whose angry waves a man must battle through whose life has been spent in painful research, who has put forth with unflinching courage his convictions in what have been hitherto almost unknown developments of natural and social science, all this one forgets when with Mr. Wallace in his garden. Here one only sees the simplest of men made happy by the beauty of flowers.

We know well that all readers of this Journal will hope that this splendid veteran may yet enjoy many years of health and strength and happy life in his new home, and that year by year his well-loved flowers may only bring him the greatest joy.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

January 16.—Société Française d'Horticulture de Londres Annual Dinner.

January 21.—Gardeners' Royal Benevolent Institution Annual General Meeting at the Covent Garden Hotel; Annual Supper, Covent Garden Hotel, Mr. Leonard Sutton in the chair.

January 26.—Royal Horticultural Society's Drill Hall Meeting.

Rose Corallina.—I think it may interest some readers of THE GARDEN to hear how well this beautiful Rose does on a wall. I planted it against an 8 feet high south wall eighteen months ago. It has now reached the top and has been in flower continuously since June last. At the present time (December 15) it is full of buds. One of the many good points which this Rose possesses is that it requires very little training, as the growth is quite erect and the flowers are carried on very stout stems; its beautiful red bark and young crimson leaves also have a very beautiful effect.—J. S., near Reading.

Chrysanthemum Lady Cranston. It is a long time since I was more impressed with a new variety in any section than with this. Certainly Mr. Murray is to be congratulated on his success in fixing the sport so successfully. The obtaining of a sport is a mere freak, but to sustain it and secure a stock of plants is not a question of luck, but of skill and attention. I am not surprised that Mr. Murray has kept this novelty. The petals are exceptionally wide, fully 1 inch, and the graceful droop of the florets gives an additional charm to the flower. The colour, too, is delicate, but decided, a rose flush in the centre, gradually fading away until the outer portion of the flower is white.—E. MOLYNEUX.

A blue and white border.—I unfortunately have not the number of THE GARDEN at hand in which Captain Reid's letter appeared, but I notice that two of your correspondents recently mentioned the difficulty as to blue flowers. For four years I have been endeavouring to form a small blue and white border with a constant succession of flowers. I have not yet entirely succeeded, but perhaps the following list of blue flowers may be of interest, although I may be repeating some already mentioned by your correspondents. The difficulty is always the same. Nurserymen in their catalogues rarely distinguish between the blue of a Gentian and that of a Lupin. Besides those in my list I am told that the following are of a good blue, but I cannot speak with certainty:—Barr's new blue Pentstemon, *Trachymene cærulea* (an annual of Sutton's), and *Meconopsis Wallichii* (Himalayan Poppy). Blue Michaelmas Daisies and Sweet Peas, both tall and dwarf, are also advertised, and some of the best pale blue Violas have recently been almost true, and I fancy there are some large Anemones, a *Phlox Drummondii*, and a *Salpiglossis* which might be included, but so far I have not tried them. Of those I know to be good the deepest blue section should contain Gentians of various sorts, some of which will require rockwork, and others a hard-trodden edge to flower them successfully. Scillas, *Muscari Heavenly Blue*, *Omphalodes verna*, herbaceous Veronicas (*V. rupestris* and others), *Salvia patens*, *Delphiniums*, *Lobelia*, *Borage*, *Convolvulus minor*, *Hyssop*, *Anchusa italica*, *Mertensia virginica*, and *Lithospermum prostratum*; and for annals, Sutton's *Phacelia campanularia*, *Eutoca viscida*, *Anagallis Philippii*, and *Commelina cælestis*. Paler blues are the many sorts of Forget-me-nots, China blue Hyacinths, *Delphiniums*, and *Nemophila insignis grandiflora*, which may be sown in autumn to flower in spring, and again in spring for summer flowering; *Chionodoxas*, *Linum sibiricum*, the *Eryngiums*, and *Anemones apennina* and *A. blanda*. Blues which incline to mauve or purple, but are worth including if separated from the true shades, are *Aquilegias*, many of the *Iris*es, *Harebells* and other dwarf *Campanulas*, *Lupins* (both annual and perennial), *Monk's-hood*, annual *Larkspurs*, *Hepaticas*, *Tradescantia cærulea*, the *Primrose* G. F. Wilson, *Peri-*

winkles, *Love-in-a-mist*, and *Cornflowers*. From these a transition can be made to *Canterbury Bells* and *Campanulas*, *Crocuses*, *Wood Hyacinths*, and other flowers of a decided mauve shade. At the back of the border some of the shrubby *Veronicas* might be grown; there are some rather good pale blues amongst them.—FRANCES GIBSON.—[Captain Reid's article appeared in THE GARDEN, November 28, page 375.]

Horticultural lectures at Broughty Ferry, N.B.—On the 9th inst. the seventh of the course of lectures on horticulture arranged for by the Broughty Ferry Horticultural Association and the Technical Education Committee of the County Council was delivered in the Grove Academy, Broughty Ferry. The lecturer was Mr. John H. Cumming, the well-known gardener at Grantully Castle, Aberfeldy, his subject being the important one of "Spring Bedding." There was a good attendance, and Mr. Cumming's very practical and useful lecture was listened to with close interest. The after discussion was valuable, and the tone of a satisfactory kind. A hearty vote of thanks was given to the lecturer.—S.

Nerine undulata.—Although not so showy as the better-known *N. sarniensis* and its varieties and hybrids, this is, nevertheless, a very desirable species. The figure in "Nicholson's Dictionary of Gardening" fails to do justice to this very graceful little amaryllid. That work also gives its flowering period as being in May, but with me and in other places it is only just going out of flower, which is a great recommendation, as this class of greenhouse plants is very scarce. The flowering period lasts about a month, and as the plants pass out of flower the spikes should be removed and the plants placed in a light position in a warm house to complete their growth. Frequent application of weak liquid manure is now very beneficial. As the foliage turns colour water should be gradually withheld and the bulbs given all the sun possible to ensure a good baking. When the leaves are shrivelled store the pots in a dry, cool place. In common with the other types of *Nerine*, this species is most effective when the pots are fairly full of bulbs, and should not be repotted more often than is absolutely necessary. As a rule 5-inch pots will be found the most useful size. The specific name, *undulata*, alludes to the undulated or wavy outline of the flowers, which are of a pleasing shade of pink, very effective under artificial light. *N. filifolia* belongs to the same class as the foregoing, and is even more rarely met with. As its name suggests, the leaves are very narrow, and about 9 inches or 10 inches long. But while *N. undulata* is very free flowering, *N. filifolia* is somewhat shy, which may account for its comparative rareness. Its colour is rose-red, and it is amenable to the same culture as the foregoing.—A. C. BARTLETT.

Dublin Seed and Nurserymen's Employees Association.—Recently at the Gresham Hotel, Dublin, the above newly-formed association held their inaugural dinner. There was a large attendance, and the chair was occupied by Mr. A. J. Sinclair, who was supported by Mr. F. W. Burbidge, M.A., V.M.H., on the right, and Mr. D. McLeod, of Messrs. W. Drummond and Sons, Limited, on the left. Mr. F. W. Burbidge proposed the toast of "The Dublin Seed and Nurserymen's Employees Association." He was glad, he said, to see the junior members so strongly in evidence, and thought the association was bound to succeed. Mr. Hall, in response said if there was anyone in Dublin who should recognise the value of that society it was the employers. In the seed trade they had much to learn, as nothing could be left to chance. He thanked them for responding so heartily to the toast. Mr. Joseph Alexander Rochfort, in proposing the toast of "The Seed and Nursery Trades," said he was very sorry that they could not use the word profession instead of trades when referring to these businesses. He was of opinion, owing to its difficult and detailed nature and the amount of study one had to go through to be proficient, that it ought to rank as a profession (applause), or at least be brought up to a standard similar to the Pharmaceutical Society, which had an Act of Parliament

to protect it. The seed and nursery trades were to his mind the closest allies the Department of Agriculture could have in working out their schemes for the improvement of agriculture in Ireland, to say nothing of reafforesting. Mr. D. McLeod, in reply, said he regretted the absence of their venerable President (Mr. David Drummond, J.P.), owing to the weight of years. Being on the verge of ninety they could hardly expect him to be with them. He thought he might claim for the seed and nursery trade, at all events, the honour of great antiquity. He impressed on the young men the importance of fitting themselves for a higher sphere of labour, by doing more than the mere mechanical work at which they were employed. If they did this they would qualify themselves for better and higher positions in the future. He hoped that before long that association would have a domicile of its own, and in that domicile he hoped to see established as an aid to improvement, a library of books of reference on botany and other kindred subjects that would qualify the young men to take a noble part in the useful sphere in which they are placed in this country, or in any other country. He should also like to see there specimens of various plants, including weeds, so that those who studied would know where they grew, and all about them. As to the heads of the seed and nursery trade in Dublin aiding the association, he was sure that he might safely say that they would not be backward in coming forward. The firm with which he had the honour to be intimately identified would, he was sure, gladly give whatever support they could, and encourage the association in every possible way. Mr. J. W. Henderson proposed "Our Guests," to which Mr. Walter Keating, secretary of the Royal Horticultural Society of Ireland, replied. Other toasts followed, the proceedings concluding with the singing of "Auld Lang Syne." The hon. secretary of the society is Mr. James McDonough.

M. Auguste Nonin.—Far beyond the fortifications of Paris, out in the open country at Châtillon-sous-Bagneux, is an establishment that we have visited on several occasions, and always met with the warmest welcome. It is M. Nonin's nursery, where *Chrysanthemums* can be seen in large numbers during the season, and under the best possible conditions. As an exhibitor at the Paris shows M. Nonin is a competitor to be reckoned with, for he is not only a grower for exhibition, but a raiser of new seedlings. He possesses a large and varied collection gathered together from all sources, he has also a fine collection of the early flowering section, and some of those now grown in this country have emanated from his nursery. It is not of these, however, that we desire to speak at present. The large flowering varieties are chiefly in our mind, and as we have seen at the London parks and in the nurseries round the Metropolis a fair sprinkling of his novelties this season, we think it useful to mention a few of those seen in the best form during our visit to Paris last month. We need not go back so far as the introduction of Mlle. Louise Brosillon, M. Frederic Daupias, Emile Nonin, Francois Pilon, Mme. Gabriel Debré, M. Raymond Desforest, Princesses Alice de Monaco, and others. Far more recent are Paris 1900, a fine golden yellow Japanese, frequently seen in the groups on the Continent this season; Sada Yacco, a fine white; Charles Schwarz, a good bright, large decorative crimson Japanese, also appeared very freely shown; M. Leguérnay is a large yellow Japanese; Mlle. Juliette Desmadrye, a charming pale rosy pink. These are all valuable varieties raised among many others by M. Nonin. They were mostly used as large flowered specimen plants in pots. His new seedlings were uncommonly interesting, Alphonse Daudet, amaranth; Fleur d'Automne, deep golden bronze; Albert Maumené, purple amaranth, with silvery reverse; Amateur Marchand, a fine crimson; Mme. Jean Page, a Japanese with curious, twisted florets, tinted pale amaranth; Isle de France, purple; and Professor Tillier, a fine deep crimson, were among the best. We also noted a fine yellow sport from Mme. Gabriel Debré called *Lamartine*.—C. H. P.

Colletia spinosa.—This species rejoices in a multiplicity of synonyms, viz., *C. armata*, *C. ferrox*, *C. horrida*, *C. valdiviana*, and *C. polyantha*. It is, perhaps, a more desirable object than *C. cruciata*, in as much as it flowers more freely, a little earlier, and, if trained against a wall, it will frequently grow to a height of 8 feet or over. It can be readily distinguished from *C. cruciata* by the shape of the spines, which are round or awl-shaped instead of being flat.—A. C. BARTLETT.

Grevillea thelemanniana.—Like the popular *Grevillea robusta*, this is worth cultivation as a foliage plant alone, but the flowers are also very attractive, and freely borne at this season of the year. If stopped during its early stages it forms a freely-branched specimen, clothed with prettily-divided leaves of a light green tint. The flowers, which are borne in rounded clusters at the points of the slender shoots (thus causing them to droop somewhat), are of a deep pink, with small yellow petals, the long curved style, which is of a reddish colour, forming, as in most of the *Grevilleas*, a very conspicuous part of the inflorescence. This *Grevillea*, which, by the way, is often known as *G. Preissi*, is a native of the Swan River district of Western Australia, whence it was introduced in 1838. There are other species well worth cultivation, particularly *G. alpina*, a little dense bush clothed with narrow hoary leaves, whose pinkish flowers are borne nearly all the year round. The hardiest members of the genus are *G. rosmarinifolia* and *G. juniperina*, or *sulphurea*, as it is often called, both of which will stand out of doors in favoured parts of the country.—T.

Adhatoda cydoniæfolia at Edinburgh.—This handsome stove plant, a member of the *Acanthaceæ*, treated as a climber, is now well in flower in one of the houses in the Edinburgh Royal Botanic Gardens. It was better known some time ago than it is now, but its distinct appearance makes it a desirable plant where stove-climbing plants are valued. The flowers, which are in clusters at the ends of the branches, are very attractive with their white tubes and rich purple lower lips, striped down the middle with white; the upper lips being white, tipped with purple. The plant is evergreen, the foliage being dark green, rather downy, and ovate in form. Although treated as a climber in Edinburgh, it is sometimes grown in a bush form, and may also be used in baskets. Fibrous peat and loam, with some silver sand, is the compost generally used, with good results. On the rafters of the stove in the Edinburgh Botanic Gardens it is very attractive at present.—S. A.

A profitable Apple tree.—As an indication of the scarcity of Apples in Essex it may be of interest to hear the particulars of the proceeds of an Apple tree in the garden adjoining mine. It is, as far as I know, a nameless cooking Apple; at least, I have never seen it included in the biggest collection of Apples at any exhibition. The Apples were bought by three different people at from 6s. to 8s. a bushel, each of the buyers picking his own lot. Twenty-three bushels were picked, and one bushel of "dropped" Apples sold at 3s., the total net proceeds being exactly eight guineas. They are very light-weighting Apples, a bushel weighing barely 40lb. (Blenheims weighing about 45lb.), but they are good keepers and a fair size. The tree is sixty years old. A farmer tells me that the country has been scoured for Blackberries this year, as all fruit has been so scarce that the domestic supplies of jam are very low. It is interesting to compare this year with two years ago. Then twenty-eight bushels were picked from the tree, and sold at 2s. 9d. a bushel. The seller paid the whole expense of the picking—two men for two days—and the net return amounted to just under three guineas.—A. PERRIS, *Chelmsford*.

Chrysanthemums without glass. Possibly the following notes on growing show *Chrysanthemums* without glass may be of interest to those who have no room in their greenhouses and yet would like a few large blooms for indoor use. The treatment is as usual until the crown buds show colour, when the pots are placed in a shed open at one side. If there is no fear of rain

they are placed out in the morning and replaced in the evening. In the event of a considerable frost threatening they are shut up in an empty stable. Although many were wetted by rain driving into the shed, there was no "damping," the open-air treatment apparently stopping it. I grew this year Mildred Ware, Mrs. Barklay (each 8½ inches across), Loveliness (8 inches), Francis Connor, Mrs. Greenfield (7½ inches), and others. Growth is too slow after November begins to try for late blooms. The blooms last in good condition for a fortnight in a room with a fire.—FENMAN.

Flora of the Southern Pacific Islands.—Mr. G. Hunt, who gave a most interesting lecture upon "Horticulture in New Zealand" before the Royal Horticultural Society last summer, is now on his way home to New Zealand. He has sent us an extract from the *Otago Daily Times* giving an account of a visit by two New Zealand botanists to the Auckland Antipodes, Bounty and Campbell Islands. They say: "Certainly no small and isolated islands anywhere outside of the tropics possess such a wealth of beautiful flowers or plants of such striking habit of growth as does the small group of islands lying far to the south of New Zealand. Further, they also possess a fauna of the greatest interest."

Salvia splendens.—During the past autumn this brilliantly coloured *salvia* did well in the open ground, and made a bright display until the end of October. I saw it in Mr. Fryett's garden, Holmehurst, Lewisham, where it was planted in association with white *Marguerites*, and the effect was very pleasing. It is certainly one of the most brilliant flowers we have for the autumn, either for the greenhouse or the garden. It is not often that it continues to flower quite so late as it has this season, but if propagated early in the spring and allowed to grow on without being stopped it will come into flower early and last a long time. There is also a dwarf variety which was used extensively and with great effect at Gunnersbury House, where I saw it some time ago.—A. H.

Trials at Wisley in 1904.—Evidently there must be a mistake somewhere regarding the trials of new or little-known plants and vegetables at Wisley, as in conversation with several Fellows they were under the impression that there would be no trials next year. I note that the recently published *Journal of the Royal Horticultural Society* gives the varieties and quantities of seeds, and I am pleased to observe that vegetables have been included, four kinds being named, these being Cauliflowers, Carrots, New Peas, and Potatoes, but it occurs to me will the land be in condition so that the trials may be reliable? We all know that Wisley has not been hitherto much cultivated, and it may require a good bit of preparation to get the ground in condition. Would it not have been wise to defer growing those vegetables that need much cultivation or, to use the correct term, root-hold? For instance, salads would have been a quicker growing crop, also French Beans and similar things. Of course, outsiders are not able to criticise, not knowing the condition of the soil or its present state. What I do wish to point out is that the Royal Horticultural Society should have these trials conducted under the best possible conditions so that the results arrived at can be trusted.—G. W. S.

Luculla gratissima.—This beautiful winter-flowering greenhouse plant is an old introduction, coming from the temperate regions of the Himalayas in 1823. It is one of those good things that have been much neglected. It is a little difficult to establish good plants, but once it finds congenial conditions it will flower freely year after year, and give little trouble. Some years ago a number of seedlings were raised at Chiswick, and these grew freely enough to start with, yet after they were about 9 inches to 1 foot high they died off, much in the same way as *Clianthus Dampieri* does. This could hardly be due to the treatment, for many of those distributed to various gardens suffered the same fate. I believe cuttings are more reliable, but these are rather difficult to root. I have found the short cuttings from well matured shoots do best. The most important point is that the cuttings must not be put deeply into the soil.

It is necessary to take off the two bottom leaves, and the cut should be quite close below the joint. The cuttings should be tied to small sticks to keep them in position, the cutting pots filled with equal parts of sand and peat, and a little extra sand on the surface; the base of the cuttings should hardly pass below the sandy surface. They will root in the ordinary propagating pit with a moderate bottom-heat. The roots are very tender, and when potting they must be handled carefully. They should be given fairly large pots to avoid having to disturb them often. Rough fibrous loam, peat, leaf-mould, and plenty of sharp sand; good drainage should be given. The plants should be potted moderately firm.—A. H.

Erica melanthera.—This pretty Cape Heath has within the last few years made headway as a market plant, not because it can be regarded as showy, but by reason of its less exacting cultural requirements than many, added to which it flowers at this season of the year, and with care will continue in bloom a long time. This latter feature, however, commends it rather to the average gardener than the market grower, the majority of whose plants being used solely for London decoration soon perish. The Heath in question forms a freely-branched bush, whose tiny, slightly fragrant flowers, varying somewhat in hue, according to the conditions under which they are grown, are, as a rule, mauve-pink, against which the dark anthers stand out conspicuously. It does not get bare of foliage at the base as many Heaths do, and treated similarly to *Azaleas* may be grown into bushes 2 feet or 3 feet high, and as much through. In a cut state the flowers last well.—T.

Bouvardias planted out.—Those who have grown *Bouvardias* on the above system will know the advantage it has over plants restricted to pot culture. This is especially noticeable where a large quantity of cut flowers is required for decorative purposes. Under this treatment the plants grow with much more vigour and freedom than when in pots, consequently larger flowers and shoots of greater length and substance are obtained, which render them more adapted to decorative work. As soon as the plants are out of flower they should be dried off and given a short season of rest. About the end of February the oldest plants should be selected to produce the young stock for the ensuing year. This may be done by cutting them back and placing them in a brisk heat for the production of shoot cuttings, or they may be shaken out and the roots divided and placed into pans in a sandy compost. Plenty of growths will result from these bits of roots; they should be potted with the roots intact. This, I think, is the easiest and surest way of propagation, as, unless the shoots are in proper condition, a large number fail to root. The plants which were potted should be grown on in a stove temperature and repotted when necessary. As the time approaches for planting them out they should be gradually hardened off. In the early summer plant them out on a west border which has been previously prepared. The plants which were not dealt with for propagation should be cut hard back, shaken out, and repotted into the same size pots and treated as advised above. These make very large bushes, and are most useful for cutting.—E. HARRISS, *Frogmore*.

The Glastonbury Thorn.—I have never before seen the Glastonbury Thorn blooming so early as in the present autumn. There is at Ealing a residence known as Glastonbury House, which has a spacious front garden with a shrubby border, and in this border is a specimen of the Glastonbury Thorn (*Crataegus Oxyacantha præcox*) in full leafage, and with a number of expanded trusses of bloom, which could be seen as early as the last week in November. Probably of the many hundreds who daily pass up and down the main road, which is the limit of the line of shrubbery, not one in five hundred notices the distinctive character of this Thorn. Its blossoms, through the well-known legend connected with them, became of so much value to all Christian nations that it is said the Bristol merchants exported them as things of price to foreign lands. This Thorn with its precocity of bloom dates back to a remote period. Its advent in Ealing came about by a native of Glaston-

bury coming to reside in the parish, where he built a mansion, gave it the name of Glastonbury House, and bringing with him one of the famous Thorns planted it in his garden, where it has flourished since. It is most precocious in a warm and fairly light soil in a sunny position. It has been found to become much later in developing its leafage when planted in cold clay soil. It is an object of much interest, and may be planted with great advantage in gardens.—R. DEAN.

The Camellia as an open-air shrub.—When visiting recently the beautiful grounds of J. H. B. Christie, Esq., The Manor House, Framingham, Norfolk, I was pleased to find a large bed of Camellias in luxuriant health growing in the open border. Mr. Kett, the gardener, told me they had been planted out about five years. During that time we have had severe frosts, but the plants have all passed through this quite unhurt. In the south-west of England the Camellia is valued as an open-air shrub; but this is the first instance I have seen of successful growth in East Anglia. That the Camellia needs glass shelter is an erroneous idea, and one reason of its hardiness is that it is slow to start into growth, while its leathery, glossy leaves withstand severe cold. As the plant blooms in the early spring, when frosts and heavy rains are apt to mar the beauty of the flowers, the Camellia is not to be recommended for planting as a flowering shrub in exposed sites in bleak districts. The foliage may escape injury, but the blossoms are likely to suffer from rain and frosts.—T. B. FIELD.

The reversion of the blue Primrose.—The fact that so many of the blue Primroses are found to revert to deep crimson shades leads to the assumption that the blue variety was obtained from a crimson parent. To the best of my knowledge, the late Mr. G. F. Wilson, to whom we owe the blue Primrose, never vouchsafed information as to how he first obtained it. Plants of blue shades are found to revert to crimson in the second and third years; and, as far as my own experience goes, they revert to no other colour than some shade of crimson. It is said that true ultramarine is not far from a pure and normal blue; but artificial ultramarine has been obtained of a decided violet colour. Now I notice among the crimson shades into which the blue of the Primrose passed a violet shade sometimes upon the crimson, and this fact, with the reversion of the blue to an almost uniform tint, leads to the inference that perhaps a combination of crimson and violet produced the blue. I think I am right in stating (though I am open to correction) that our blue self Auriculas have been obtained from shades approaching crimson. I tried for a long time to lead a violet Primrose up to a good purple and blue, but not with much result in the cases of the purple flower, and with none in the case of the blues. But I have noticed that crimson-shaded Primroses in the act of fading will frequently take on a blue tint, as if the blue were hidden in the prevailing colour, and revealed itself in decay. Obviously, then, the perpetuity of the blue Primrose cannot be depended upon through many generations of divided plants; therefore, it seems necessary to raise seedlings annually, and to ensure the best results seeds should be taken only from pure blues. Seedlings show a considerable range of colour, from quite pale blues to almost or quite ultramarine blue. Many of the blue Primroses come with a reddish ring round the eye. Two objects should be kept in view: one—the paramount one—that of securing decided blue shades; the other, to select, as far as possible, seed parents having stout and well-formed corollas. Constitutionally, the blue Primrose appears to be weaker than the ordinary coloured varieties; indeed, I have found it necessary this season to lift a large number of my plants in the open air and place them in cold frames. The plants appear to dislike much moisture, so the practice of selecting vigorous growers as seed parents is one to be commended.—R. DEAN.

Platyceriums at Glasgow Botanic Gardens.—There is a very interesting group of Platyceriums in one of the houses of the Glasgow Botanic Gardens, which have been considerably improved of late. Some of these Elk's- or Stag's-

horn Ferns are splendid specimens, and readers in the neighbourhood of Glasgow should take an opportunity of seeing these and other plants at the Botanic Gardens. Among the Platyceriums there will be seen *P. aethiopica*, a fine plant; the more common *P. alcinornae*; the noble *P. grande*; the Australian *P. Hillii*, resembling somewhat *P. alcinornae*, but with shorter fronds; and the handsome Java species, *P. Willinkii*. As has been well said, "the Platyceriums may be considered at once the grandest, most beautiful, and most extraordinary of the whole order." They are cultivated in rafts, baskets, or small pans, but look best when grown on a block of wood, with only a little peat and sphagnum about the roots. *P. alcinornae* is the easiest to grow, and the writer has cultivated it for years in a greenhouse from which frost is excluded and no more.—S. A.

Improvements at Edinburgh Royal Botanic Gardens.—Further progress has been made in the remodelling of the grounds of the Royal Botanic Gardens, Edinburgh, a work which has been in progress for some years, and which is being gradually undertaken. Extensive alterations have been made in the paths, which have had the effect of adding greatly to the convenience of access to the various parts of the gardens. A new path is at present in course of formation in the part of the gardens near Inverleith Row, and the work is being done in a thorough manner. Some commodious new sheds, which will be a great convenience to the working staff, have been erected in the private part of the gardens behind the range of houses. The Palm house is being repainted, and some minor structural improvements are being effected on some of the buildings. At the rock garden two crescent-shaped "wall gardens" are being formed for the purpose of growing a number of plants, which are more satisfactorily cultivated in this way than in an ordinary rock garden.—A.

THE ROSE GARDEN.

EXHIBITION ROSE ANALYSIS, 1896 to 1903.—II.

TEAS AND NOISETTES.

"If we next direct our attention to the table of Teas and Noisettes we shall at once see what a disastrous year the past one has been for the

Roses in this charming section. In fact, the season appears to have especially favoured only three varieties on the list, viz., *Medea*, *Cleopatra*, and *Anna Olivier*. As regards *Medea*, it was to be seen in nearly every stand. In previous years its records have varied from 14 to 27, but at the last exhibition it was staged no fewer than forty-seven times, or rather more frequently than any other Rose in the show; while *Cleopatra* (No. 18) and *Anna Olivier* (No. 22) have never before been as largely shown.

"Nearly all the other Teas were more or less indifferently represented. *Maman Cochet* still stands at the head of the table, but has never before been as sparsely exhibited, and the same may be said of *White Maman Cochet*, while such old and tried favourites as *Catherine Mermet*, *The Bride*, *Comtesse de Nadaillac*, *Bridesmaid*, *Mme de Watteville* and *Maréchal Niel* have at no previous exhibition appeared in as few stands, even if we go back for fourteen, and in some cases even seventeen years.

"There are four Teas on the list which were sent out during the last six years, and consequently may be regarded as new varieties. That grand lemon-white sport from *Maman Cochet*, *White Maman Cochet*, is the sole representative of 1897. It was placed second on the list last year, but now stands at No. 3. There can be little doubt, however, that in the next analysis it will be found to have regained its former position. *Mrs. Edward Mawley*, which was distributed in 1899, still remains at No. 5, and appears to be as great a favourite as ever.

"We now come to two new yellow, or rather orange-coloured T's and N's, both of which came out in 1902. The first of these, *Souvenir de Pierre Notting*, secures a place on its first appearance at No. 28, while the other, *Lady Roberts*, also a new-comer, will be found at No. 32. We all know how limited are the number of good yellow exhibition Roses, and therefore, as we rejoice in the fine form this year of the pale yellow *Medea*, so shall we watch with keen interest the future progress of these two new candidates for honours."

TEAS AND NOISETTES.

Position in Present Analysis.	Average Number of Times Shown.	No. of Times Shown in 1903 in True Relative Proportion to the Average.	Name.	Date of Introduction.	Raiser's or Introducer's Name.	Colour.
1	45.6	33	Maman Cochet	1893	Cochet	Deep flesh, suffused light rose
2	37.1	29	Catherine Mermet	1869	Guillot	Light rosy flesh
3	37.0	28	White Maman Cochet	1897	Cook	White, tinged lemon
4	36.7	28	The Bride	1885	May	White, tinged lemon
5	33.5	33	Mrs. Edward Mawley	1899	A. Dickson & Sons	Pink, tinted carmine
6	31.2	11	Comtesse de Nadaillac	1871	Guillot	Peach, shaded apricot
7	29.5	34	Souvenir de S. A. Prince	1889	Prince	Pure white
8	29.5	22	Mme. Cusin	1881	Guillot	Violet-rose
9	27.2	21	Innocente Pirola	1878	Mme. Ducher	Creamy white
10	26.0	20	Mme. Hoste	1887	Guillot	Pale lemon-yellow
11	25.2	16	Bridesmaid	1893	May	Bright pink
12	24.7	47	Medea	1891	W. Paul & Son	Lemon-yellow
13	24.6	27	Souvenir d'un Ami	1846	Belot-Defougère	Pale rose
14	22.5	16	Souvenir d'Elise Vardon	1854	Marest	Cream, tinted rose
15	22.0	19	Muriel Grahame	1896	A. Dickson & Sons	Pale cream, flushed rose
16	19.3	6	Mme. de Watteville	1883	Guillot	Cream, bordered rose
17	18.4	4	Maréchal Niel (N.)	1864	Pradel	Deep bright golden-yellow
18	16.9	23	Cleopatra	1889	Bennett	Creamy flesh, shaded rose
19	16.2	7	Ernest Metz	1883	Guillot	Salmon, tinted rose
20	14.4	9	Marie Van Houtte	1871	Ducher	Lemon-yellow, edged rose
21	14.1	11	Honourable Edith Gifford	1882	Guillot	White, centre flesh
22	14.0	31	Anna Olivier	1872	Ducher	Pale buff, flushed
23	13.9	10	Caroline Kuster (N.)	1873	Pernet	Lemon-yellow
24	12.7	16	Princess of Wales	1882	Bennett	Rosy yellow
25	12.6	5	Niphetos	1844	Bougère	White
26	11.2	11	Golden Gate	1892	Dingee & Conard	Creamy white, tinted rose
27	9.5	22	Rubens	1859	Robert	White, shaded creamy rose
28	9.0	9	Souvenir de Pierre Notting	1902	Souper et Notting	Apricot-yellow, shaded orange
29	8.6	3	Ethel Brownlow	1887	A. Dickson & Sons	Rosy flesh, shaded yellow
30	8.0	5	Jean Ducher	1874	Mme. Ducher	Salmon-yellow, shaded peach
31	6.4	7	Mme. Bravy	1848	Guillot	White, flushed pink
32	5.0	5	Lady Roberts	1902	F. Cant & Co.	Rich apricot

*New varieties, whose positions are dependent on their records for the 1903 shows only.

The first portion of the analysis appeared in *THE GARDEN* of the 19th inst., the same being taken from the *Journal of Horticulture* of October 29 last.

I have given the whole of Mr. Mawley's comments on the Tea and Noisette table. They must be read, of course bearing in mind the fact that they refer to the Rose only as exhibited at the Temple show of this year, 1903. It is curious how Roses vary year by year, showing that the weather (causing earliness or lateness) has a large share in the ultimate result.

Undoubtedly Medea and Cleopatra were extraordinarily good in the early part of the season. Medea is a Rose I have always grown; but if I could rely on its doing next year what it did for me this I should double my number of trees of this variety, but then one cannot rely on anything of the kind. There is no apparent reason for these vagaries. I see Medea, in a trade catalogue I have before me, is called a hot season Rose, and I should have said it certainly required more heat than cold and rain, yet in one of the coldest and latest and wettest seasons of recent years we have Medea coming up smiling. Then La France. I have never had better La France than I grew this July, yet no one would expect it to do well in a wet season, and I suppose if there have been any two Roses that have generally throughout the show season been excellent all over the country they would be Bessie Brown and White Maman Cochet. Time after time these two Roses secured the silver medal for the best Rose of the show in their respective classes, yet they would both be called dry and not wet season Roses. I have never seen such White Maman Cochets anywhere as the blooms the Rev. F. R. Burnside took first prize with and silver medal at Glasgow this year. I saw them growing before they were picked, and both the plants and the blooms were unique. I for one do not expect to see such blooms again for a year or two, so that bad season as it undoubtedly was, it had its compensations for some of us.

I note White Maman Cochet drops down to No. 3, losing second place by '1. This, no doubt, is largely owing to Catherine Mermet's average extending over a longer period. As to the actual merits of the two Roses, I do not think there is any comparison; in fact, I would go further, and say that White Maman Cochet is the finest Tea in cultivation at the present time, and yet a writer in your contemporary, *Flora and Sylva*, in this month's current number, in an article enumerating not a dozen, but some hundreds of what he is pleased to call "The Great Roses," leaves it out as unworthy of mention.

Mr. Mawley speaks modestly of that grand flower Mrs. Edward Mawley. I note that only two Roses, Medea and Souvenir de S. A. Prince, were more frequently shown in the whole list of thirty-two Teas. I quite expect to see this Rose above the Mermets, namely, Catherine and The Bride, next year. It is a grand flower that, I think, is not picked young enough as a rule, and if not picked young it speedily loses its really pretty colouring.

A note should be made of the resurrection of Anna Olivier. Two years ago, namely, in 1901, there was not a single bloom of this Rose to be found in the whole of the prize stands throughout the exhibition. That was an early year. The best blooms of Anna Olivier had been wasted, that is to say, they did not reach the Temple. This year a late one, and Anna Olivier comes into her own again.

The year was notable for the introduction of Lady Roberts and Souv. de Pierre Notting, the one a highly-coloured and beautified Anna Olivier, the other welcomed as a yellow Maman

Cochet. This, I am afraid, it hardly is, and I think Lady Roberts will prove to be the more useful Rose of the two, though neither of them had a fair trial this year. Good exhibition Teas are scarce, and 1902 may consider itself fortunate. It is nine years since two good Roses of the Tea class were introduced in one year; as a rule we get a new exhibition Tea about once in three years. I hope to refer to the very interesting audit on "The Newer Roses" next week.

H. E. MOLYNEUX.
Brantwood, Balham.

WINTER PROTECTION OF ROSES.

SPEAKING recently to an amateur, who is a large grower of these Roses in the Midlands, he gave it as his opinion that more harm was done to Tea and Hybrid Tea Roses by careless protection than was attributable to winter frost. I am much inclined to agree with this opinion myself. There is nothing so harmful as long stable manure often recklessly thrown over and beneath the bushes; but, fortunately, one is not confined to the exclusive use of this material. My own opinion is that a good moulding up around the base of the bushes with burnt garden refuse or fine soil, such as the waste of the potting shed, is most beneficial, and rarely have I seen a plant killed outright that had been so protected. Should a severe spell of frost set in, some dry straw scattered among the branches, or Heather or Bracken Fern upon which snow can lodge, affords a complete protection.

For standards and half standards I am persuaded nothing can surpass a good thatching of straw, unless it be lifting the trees and heeling them in under a north wall where some protection, such as boards or large boughs of evergreen, can be bent or inclined over them. We may think this rather troublesome work, but it pays, and one's Roses are somewhat retarded thereby, which is a distinct gain when we remember the treacherous character of the English spring.

No time should therefore be lost in placing burnt earth, soil, or ashes around the bush plants, and the straw held in readiness to put on when required. Standard Teas should be thatched at once. Three stakes around each tree in the form of a tripod with a hood or cap of straw thatch would be a good plan. Whatever is used there must be due provision to ward off the effect of gales, also for ready removal during mild periods.

In very low-lying districts I believe in lifting even the dwarf plants, heel them in in a sheltered spot away from sun, and replanting again in March.

It is to be hoped we shall not have a hard winter. Growth is not well ripened, the soil is cold and wet, and the plants scarcely in a condition to withstand a period of great severity. Experts declare that a very hard winter is due, and if their prophecy is



GALEGA HARTLANDI.

fulfilled I fear many of the tender tea-scented varieties will be practically killed, so that it will be well to be prepared by giving timely protection. P.

NOTES ON HARDY PLANTS

GALEGA HARTLANDI.

MAY I claim some small authority over the introduction of this beautiful hardy plant, the same as I did some years since over that now most popular Sunflower *Soleil d'Or*, when spreading it with difficulty through the gardens of England. Until then there was but one double in existence, that which I then called *Anemoneflora*. Meantime I got drawings made of the two varieties by my niece, which were engraved by Mr. Welsh of London and illustrated in *THE GARDEN*, so that one never knows how

"Many a flower is born to blush unseen
And waste its sweetness in the desert air."

Same as with *Narcissus cyclamineus* read of in old books, and thought of by the botanists of the age as being impossible of existence. This, by way of preface, as to what may be said about the above plant.

I have been informed by a very high authority of the existence of *Galega patula*, and that my plant may be it, but fail to find it even in the latest edition of Johnson's "Garden Dictionary." If there is I should like to hear of it, and if it seeds. What is more, perhaps some of your botanical readers would give me reference as to the name *patula*. My plant yields no seed. Now

for the history of the plant shown in the illustration from a photograph taken here last year by my son. I sowed a packet of mixed seed I had from France about twelve years since, and planted out the seedlings, which gave seed freely. Later on I sowed again, with the result that one plant was a bicolor or tricolor form, a chance from the cross fertilisation of bee action, and I now venture to introduce it to all lovers of herbaceous plants, especially for cutting and market. It is highly decorative on account of its colour, with a touch of *Wistaria sinensis*, with variegated foliage when starting into growth in the spring. I would rather that Mr. F. W. Burbidge or Mr. W. C. Leach of Albany Park Gardens, both of whom have had plants, had written this notice, simply because self-praise may count for naught.

The tree at the back of illustration is *Pyrus Malus floribunda*, and the little gathering in front that of the rare white form of *Vinca acutiloba*.

Ard Cairn, Cork. W. BAYLOR HARTLAND.

[We received flowers of this beautiful plant last year from Mr. Hartland, and asked for a photograph, which we herewith reproduce. The flowers are blue and white. *G. patula* is in the Kew collection.—Ed.]

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London.

WILD STRAWBERRIES, ROSES, AND PRIMROSES FROM IRELAND.

We receive from Mr. Cunningham, Fernhill, Belfast, a reminder of spring. Our correspondent sends wild Strawberries and Primrose flowers, which were quite as fresh as those of spring. The letter is dated November 30, and is as follows: "Last night we had the first hard frost of the season, and this morning when on my way back, after having seen to a frozen water-pipe, I was agreeably surprised to find this Rose, Primrose, and bunch of wild ripe Strawberries, which I now enclose to you. The Rose was growing on a south wall, and the Primrose and Strawberries behind a thick north hedge, well sheltered from the east, but at an elevation of 300 feet."

STREPTOCARPUS.

Mr. Beckett, The Gardens, Aldenham House, Elstree, sends a boxful of flowers of the cheery *Streptocarpus*. The selection is an excellent one, and the following notes from this grower will be welcome: "The improvements effected during recent years has greatly enhanced the value of the *Streptocarpus* both as a pot plant and for supplying cut flowers. Probably no one has done so much in giving us such a range of beautiful colours as the well-known firm of Messrs. J. Veitch and Sons, of Chelsea, and also in improving the habit of the plant they have done much by careful crossing and inter-crossing. The cultivation of *Streptocarpus* is regarded by many as somewhat difficult, but when a proper method is adopted this is really not so, and having grown these successfully for some years I will relate as nearly as possible our mode of treatment for the benefit of any that intend taking up their culture, or those who have not had such satisfactory results as they would wish. I am convinced that in many cases the cause of failure is due to growing them in too warm a temperature and treating them as stove subjects. It cannot be too clearly pointed out that this certainly means disappointment. A greenhouse is the most fitting place for them, as not only do the plants

grow more luxuriantly, but the flowering period is much prolonged. I am with this note sending you a small box of blooms taken from plants which began flowering last April, and which we exhibited at the Temple show in May. Many of these will continue to bloom till quite the end of the year in a temperature of 50°. The only time heat should be given is to raise the seed and give the young seedlings a start. The seed may be sown either in early spring or autumn. I prefer sowing early in February, as by so doing the young plants will all flower during the summer, and the best varieties can be selected for growing on into good plants for the following spring, summer, and autumn.

"RAISING SEEDLINGS.

"The greatest care should be taken, as the seed is very minute. A light, porous compost should be prepared, and medium-sized pans, well drained, used for the purpose of raising them. The soil should be made moderately firm. After all is ready distribute it evenly over the surface, press down firmly, and no soil should be placed over it. Stand the pans in a vessel of water up to the rim till the whole of the soil is thoroughly moistened, and place pieces of glass over the same to prevent drip disturbing the seed. Stand the pans in a shady position in a temperature of from 55° to 60° of heat. Very little water will be required till the young plants appear, but at the same time the soil must not be allowed to become dust dry; whenever it is necessary to give any apply the same with great care, using a very fine rose watering-pot for the purpose. The young plants should make their appearance in about sixteen days, when the pans should be placed on a shelf near the glass but shaded from the sun, especially in early morning. Immediately the young seedlings can be handled prick out into other pans or pots, and nurse along carefully in the same temperature and position, when they will be found to grow away rapidly, using a compost of fine peat, leaf-soil, fibrous loam, and sand in equal proportions. As soon as the second leaf shows itself pot off singly into 3 inch pots, using the same kind of mixture for this potting. Thoroughly drain the pots and place a little fibre over the drainage to prevent the soil mixing with and clogging the same.

"Arrange the plants on a bed of finely sifted cinder ashes in a pit near the glass, and attend to them carefully, where they may remain till the young plants bloom. All the best and most distinct colours should be selected and marked for growing on into specimens the following year. *Streptocarpus* always need a season of rest, and early in November arrange them on shelves in quite a cool temperature and give very little water, just sufficient to prevent them flagging.

"Early in the new year the plants should be thoroughly soaked and potted on into 4½-inch pots, using a compost similar to that previously advised, except that it should be in a more lumpy state, and add a 6-inch potful of bone-meal and the same of charcoal, finely broken, to every bushel of compost. Pot very firmly, and an ideal place to give them is an early Peach house, which is just being started. Very little water should be given after the plants have once been thoroughly watered in until active growth has begun, and remove the plants to a cooler and lighter structure. Where a small span-roofed house can be devoted to them so much the better, failing this give them the lightest position in the greenhouse, and when careful attention is paid to them splendid results will follow if grown in pits with a flow and return hot water pipe running through them. During hot weather *Streptocarpus* always revel in a cool, moist bottom, thoroughly damping between the pots but not the foliage. To obtain the best results one more potting should be given after the pots become well filled with roots, and in so doing care should be taken to disturb the roots as little as possible, and not to damage the foliage, as when in full vigour it is very susceptible to injury if roughly handled. The size of the pots will have to be determined by the plants, 6-inch or 7-inch are generally to be preferred, but very vigorous ones may be put into 8-inch. The plants should not be crowded together, allowing ample space between

each for the foliage to develop, and each to be thoroughly examined as to watering, &c., and both for convenience and appearance the plants are best if raised on inverted flower-pots.

"FEEDING.

"After the pots are well filled with roots manure water should be given at every other watering. Weak Peruvian guano water, and that properly made from horse and cow manure, given alternately I prefer to anything else. This should be continued all through the flowering season.

"SHADING.

"Thin blinds should be used to protect the blooms and foliage, but a dense covering should be strictly avoided or the flowers will lack that bright colouring so much admired. The individual blooms will last a considerable time, especially so when wanted for any given date if floral gum is used for fixing them. The improved forms are excellent for cutting, and make very charming table decorations when associated with suitable light foliage, and these will last in a fresh condition for a very long time when cut. The same plants will last many years if kept in a clean and healthy condition, and by giving them a complete rest in a cool place after flowering, shaking them out, repotting in early spring, and starting in a gentle heat, as previously advised, when these will make very large and handsome specimens.

"INSECT PESTS.

"The most troublesome to the *Streptocarpus* are mealy bug and green fly. The first named when allowed to become established will cause serious annoyance, and care should be taken to keep the plants free from this. By growing them cool and away from the proximity of stove plants this will not be nearly so likely to infest them. Green aphid can easily be kept in check by frequently fumigating with XL Ail, which is safe and effectual.

"SEED SAVING.

"It is extremely interesting and quite worth the trouble to take some pains to cross the best varieties and ripen the seed. A large batch of small seedlings gives a lot of pleasure as one watches them develop, as many very beautiful and distinct varieties will sure to be the result. The seed takes a long time to perfect and ripen, and the pods should not be picked till just before they are ready to burst, after which it should be placed in shallow boxes on stout, white paper, and stand on a shelf near the glass to finish, when in a few days it can be cleaned and stored away, which will require to be done with much care."

THE FLOWER GARDEN.

GARDEN PATHS.

(Continued from page 428.)

BY the dwelling-rooms of a perfectly-gardened house I have seen neat paths made of hard paving brick, put down parquet fashion, on which it is a pleasure to walk even in the wettest weather. They lead to the spot where the last pink Rose is daintily blooming, to the wall on which hang trails of green and crimson, or to sunny corners bright with red and gold *Chrysanthemums*. How good it is when one can gather autumn flowers dry shod. Here in Flint-land very decent paths are often made of rounded flint stones. These do not wear so very well—the paths, I mean, not the stones—but they are readily repaired and cheap, for flints abound. People who live on clay are not so lucky. Some of them even have recourse to asphalt for making paths, the last thing one would wish for in a garden; it is so dull, so barren. One does like some life even in the walks we tread; but it is dry and lasting, and only annoys in the dog days when it is apt to soften.

For the kitchen garden the cinder path is not to be despised. Homely it may be, but there is fitness in it. Grass paths for the purpose are much prettier, but they are not so dry. It is for the Rose garden that the ideal path is made of grass,

the softest, the finest, the silkiest, the most velvety that can be grown.

When we recall the gardens we have enjoyed, either at first hand by seeing them, or at second hand by hearing about them, a little effort will recall many other kinds of paths. In South Devon among the tors and Heather is a garden where the walks are made of granite, crushed in a "stamper" up in the hills hard by. They positively glitter with iron ore, and the tiny pretty scales that wear off it go everywhere, even into one's bedroom, where they spangle the sheets and counterpanes and duchesse table covers. In a garden of South Africa, right on the veldt, the walks are made of ant-heap. This is capital stuff, and there is plenty of it about, only it seems too bad to deprive the ants. It has to be crushed and damped, and then "dumped" down. The colour is reddish yellow, and good management makes it as hard as the best gravel.

Another kind of path belongs to the garden of the West Indian Islands, that is, if it is a Coral Island. Everything is coral, so, of course, the paths are coral too, flattened down. The coral is nearly as white as chalk, but not so crumbly. It is much easier here to get paths than beds; every handful of earth must be imported, so one can only have a layer of it. Tubs are the great feature, and invaluable for growing flowers and shrubs.

The English seaside garden over which the writer now presides has paths which are a welcome change from gravel. They would not please everybody however, being simply made of shingle from the beach.

In the matter of shingle for path-making one has, I find, to be very particular. Only pebbles of a certain size are comfortable to walk on, and they can only be found after certain winds and certain tides, so if a storm comes in the middle of your path-making you will have to wait till it is over. Then how pleased you are to see the shingle-carts come rumbling up the cliff, drawn by their teams of mules, the driver very well content with the load he knows is just the thing you want, and you will want a good many loads to do the work properly. Practically we find shingle answers very well; it is dry and clean, and never sticks to one's boots and shoes. It seems odd at first to rake a path instead of rolling it, but in time we get accustomed to this, and the noise the gardener makes about his work becomes as soothing to the ear as the sounds of the broom and roller of old days. The result in the way of a neat appearance is equally satisfying.

If we are the fortunate possessors of a wild garden, that will want quite different paths again. Neither gravel, nor cinder, nor shingle would avail us here. We should prefer a natural-looking track of Grass, or Moss, or Heather, and if we have stepping-stones they must be placed in careless fashion as if by happy chance. Of all paths, Heather is the most elastic and exhilarating to walk upon, as all have found out who have explored our English heaths.

When one is by the sea-beach and sees so much sand, and such an abundance of little stones, it does seem odd that one cannot mix them in right proportions and so make gravel for one's self. This great discovery was mooted lately to the King of Spades, who, in his blunt Norfolk way, replied "It would be rubbish." Nothing would make it bind. "And why?" "Because the sea-stones are round, and gravel stones are pointed." This was unanswerable. Recollections of the particular sort of cut and bruise incurred by tumbles on gravel-paths of childish days prove the truth of the remark, at all events so far as concerns the shape of gravel stones. For little children, as for Roses, Grass paths are undoubtedly the best. The paths in Gilbert White's garden I never had the luck to see, but only pictures of them. One

of these shows a winding and most cosy-looking walk made of small flags (they may be tiles), and it leads from a bowery doorway through grass lawns I know not whither. Its owner was a comfortable person, and he had a comfortable path. We cannot do better than follow his methods, always remembering that every path must suit particular needs, and that it is both good taste and good economy to make use of the material that lies to hand; ten to one it will look more suitable than anything else. F. A. B.

A FLOWER BED.

I SEND you a photograph of Viscountess Folkestone Rose, which I consider is one of the best Roses we have with us. It is very free flowering; one of its excellent points is that it opens its flowers on a shoot altogether, which is a great advantage for cutting; it generally has from three to five good flowers on each stem, and with its beautiful soft tint and delicious scent it should always be a great favourite for garden decoration. The Sedum is glaucum,

conditions). The flowering portion of the stem is 2 feet 6 inches long, and thickly studded with deep crimson blossoms, which are enhanced by the dark leaves and stems.

L. syphilitica, as every one knows, has blue flowers, green leaves and stems. From these the following varieties were raised:

Asteroid, the dark stems are clothed with bronze tipped leaves; the habit of growth is erect yet branching. On one plant I counted as many as twenty side shoots, all furnished with scarlet blossoms, heavily suffused with carmine. This is decidedly an acquisition.

Magnificent attains a height of 4 feet 6 inches, has a dark stem and green leaves. The flowers are bright scarlet; a showy and pleasing variety.

Ignes has green leaves and stems, producing freely its large blooms, which are carmine-rose with a white eye. In height it grows 4 feet 6 inches.

Mulberry, 2 feet 6 inches high, has green leaves and stems. The colour, mulberry, suffused with purple, is especially distinct and attractive.



VISCOUNTESS FOLKESTONE ROSE WITH A CARPETING IN FRONT OF SEDUM GLAUCUM.

which makes a good carpet for Rose beds, and when in flower is a great favourite of bees. The beautiful silver-grey flowers give a good effect to Rose beds, or when planted among the flagstones; it is also a good plant for old, dry walls. J. S.

HERBACEOUS LOBELIAS.

THE herbaceous Lobelias, of which *L. cardinalis* and *L. syphilitica* are distinct types, are quite showy and useful in themselves; but now that we have in addition a dozen distinct varieties all emanating from these, the family is becoming increasingly useful, either for the border or for massing in beds in the summer garden. Thanks to Messrs. Loddhams, The Nurseries, Shirley, Southampton, I have had the pleasure of testing a dozen varieties of their raising, particulars of which I give below.

L. cardinalis Queen Victoria is an improved form of the type, and the one generally recognised as such a useful plant that it was difficult to imagine at one time how any improvement could be effected (this variety grows fully 5 feet high under proper

Andrew Barlow, 3 feet 6 inches, has dark stems and leaves, branching quite freely. The colour, rich plum or purple-magenta, is very distinct and attractive. This is indeed a charming variety.

Mrs. Charles, 3 feet 6 inches, has pale purple-coloured stems and narrow green leaves, which have a faint copper suffusion. The habit is branching, the rather small purple-coloured flowers are set widely apart.

Superbissima, 3 feet, has purple stems and leaves, with broad, deep coral-red blossoms, blotched with white.

Multiflora, 4 feet 6 inches, has green leaves and stems, is thickly studded with small carmine-coloured blossoms.

Salmones, 2 feet 6 inches, has also green stems and large leaves. In colour the flowers are rose-pink with a pure white eye; a very attractive variety.

Elsie, 4 feet, has green leaves and stems, the widely set apart flowers are light purple, with a distinct white eye.

Prince of Bedders well deserves its name, branching

freely. The stems and leaves are green; the colour—bright crimson—is showy; 4 feet.

Carmine Gem, 3 feet 6 inches, has green stems and bronze-tipped leaves; in colour the flowers are carmine.

In preparing these plants for the summer display, the stronger they are when put out the greater will be the success, the more robust they are and taller the growth the greater the quantity of flower, and longer continuance in the autumn. Keeping the plants through the winter is at times a little troublesome. In few gardens is it safe to leave them in the ground during the winter—certainly not in a heavy, retentive soil. Where the soil is sandy, and the position a sheltered one, they might be left out all the winter with a mulching of dry leaves. The safest plan is to dig up the roots when flowering is past, cut away the stems, and store them in a cool dry place during the winter, just keeping the soil moist to prevent the roots shrinking too much. In February break them up into single crowns, pot in sandy soil, give them a gentle heat to start into growth, then give cool quarters, and through March and April grow the plants vigorously by giving them a shift into 4-inch or 5-inch pots, using

the pool or pond in which ornamental water-plants are grown the better one is able to enjoy them. In the large pond, and still more in the lake whose length is measured by miles, the scale of the water surface is so large, and the visible extent of land and water so wide, that one does not feel the want of the small water-plants nearly so much as one desires a bold treatment of tree and bush, and such fine things as will make handsome groups upon the shore and masses in the middle and further distance. If I had a large space of water, with land more or less bare and featureless sloping to it, I should begin by planting a good extent of the coolest and dampest slope with Spruce Fir, bringing some of the trees right down to the water's edge.

"The Spruce would be planted as far apart as they were to stand when full grown, but more thinly to the water's edge, so that here, as they grew, they could be thinned by degrees till they stood in good groups. Birches would also be planted near the water, and would show as graceful silver-stemmed trees standing reflected in the lake and backed by a dense forest of Spruce. Scotch Fir is also beautiful near water, especially in

"If the lake or large pond is in flat low-lying country the large growing Poplars and Willows . . . will suit its banks or near neighbourhood."

ORCHIDS.

ORCHIDS IN GREATER MANCHESTER.

(Continued from page 431.)

THE next collection visited was that of Mr. R. Briggs Berry, of Bank House, Accrington, one of the best-known in the North of England. It is particularly rich in the finest forms of the *Cattleya* family, especially albino forms, a few of which were in bloom, but the majority of autumn-blooming sorts were past.

Cattleya labiata alba was still good however; the pure white form of *Cattleya gigas* is to be found in this collection. *Cattleya Countess of Derby* is a magnificent natural hybrid, and is considered by Mr. Wilkinson, the cultivator at Bank House, to be the finest of all known *Cattleyas*, and his estimation is, I think, correct. It is impossible to mention all the splendid forms grown here. The *Cypripediums* made a grand display; more than fifty flowers of *Cypripedium insigne* *Sanderæ* were counted, and the yellow forms of *insigne* alone were a grand sight. The unique form known as *Cypripedium insigne* *Madge* must be recorded; it is very beautiful, and somewhat resembles *Cypripedium insigne* *sanderianum*, but is quite distinct in shape and character, and more nearly approaches the elusive *Cypripedium insigne* *album* than any other form I have seen. *C. insigne* *Harefield Hall* variety was represented by more than twenty fine blossoms, and all the best of the yellows were conspicuous; also the richly-coloured hybrid *C. triumphans*. *C. leeanum* *clinkaberryanum* was represented by three specimens, two of them with four flowers each; these were the finest cultivated plants I have ever seen. *C. Mandia*, *C. callosum* *Sanderæ*, and *C. lawrenceanum* *hycanum* were also well represented. Several fine specimens of *Cymbidium tracyanum* were in flower, the collection containing the darkest form in existence.

Odontoglossums are grown in a grand span house 10 feet high by 12 feet wide, the stages arranged in three tiers, and it is difficult to imagine a healthier and more robust lot of plants. Plenty of air is considered essential, and the result is

shown in the vigour of the plants and the substance and purity of colouring in the blossoms. Many richly-blotched forms of *O. crispum* are in the collection, but at the time of my visit were not in flower. The quantity of grand and almost price-less sorts in this collection is well known, and horticulture owes much to the deceased lady who, with great care and judgment, formed this very notable collection of Orchids.

Though at the time of my visit the foggy, frosty weather was most unfavourable, a feature that greatly impressed me was the great number of *Cypripediums* in flower in all the collections I visited, showing the great popularity of the winter-blooming species, varieties, and hybrids of this genus.

It is not unlikely that in the near future the *Cypripedium* will become as popular as the *Odontoglossum*, especially if a few good distinct winter-blooming species could be introduced to hybridise with those already in cultivation. The late Mr. William Thomson of Clovenfords told the writer fifteen years ago that "*Cypripediums* had had their day," but they have grown rapidly in popular estimation ever since. One cannot imagine these



SCOTCH FIR ON A LAKE SHORE.

a compost of loam, leaf-mould, and half-decayed horse manure. A cold frame, with the plants standing close to the glass, where growth will not be drawn up weakly, suits them best. Put them early into their flowering quarters, adding manure freely, and giving copious supplies of water during growth, as they are moisture-loving subjects.

In growing the variety *Queen Victoria* some treat it as a biennial, sowing the seed in August in a gentle heat, growing the plants on all the winter, and by May they are strong, and give flowering spikes from 4 feet to 5 feet high.

E. MOLYNEUX.

WATER GARDENING.

LAKES AND LARGE PONDS.

In reply to "H. F. B."

WE cannot do better than quote Miss Jekyll's remarks in "Wall and Water Garden," page 109, in reply to your question. "Except in the case of Water-Lilies I have often noticed that the smaller

hilly ground, and it might be better to plant Scotch than Spruce if the land was very poor and sandy. But Spruce is essentially a damp-loving Conifer, and nothing gives a more solemn dignity to a water landscape than a large extent of its sombre richness of deep colouring, especially when this is accentuated by the contrast of silver Birches.

"If the soil is strong or of a rich alluvial nature Alders will grow to a large size, forming great rounded masses. But some smaller matters will also be wanted to give interest to the lake shore, so that here will be clumps of the Royal Fern (*Osmunda*), and the graceful Lady Fern, and where the path passes there should be clumps of Water Elder (*Viburnum Opulus*) giving its pretty white bloom in early summer and its heavy-hanging bunches of shining half-transparent berries in the autumn months, when the leaves also turn a fine crimson colour.

"The sunny bank of the lake I should keep rather open and grassy, with only occasional breaks of bushy growths of Thorn and Holly, wild Rose and Honeysuckle, with woodland planting of Oak and Hazel, Thorn, Holly, and Birch beyond.

beautiful long-lasting Orchids losing their hold in popular estimation, especially when one considers their generally easy culture and the comparatively small space necessary to contain a collection. The thought struck me that there is much keener enthusiasm among the North countrymen for beautiful Orchids than

style crests of which are deeply fringed, and the falls are very broad and wavy. The standards or inner petals, as in all this group, are reduced to mere filaments. It blooms in midwinter and when its flowers have little chance of developing, hence it should have a position in the front of a south wall or should be grown in a cold frame. Numerous varieties are grown in Southern Europe, but only alba and atropurpurea have found their way to our gardens.

I. unguicularis (Poiret).—This well-known lavender-tinted winter-flowering Iris, hailing from Algeria, is better known, perhaps, under its garden name of *Iris stylosa*. It should be widely grown, for it is the only long-stemmed plant flowering naturally in midwinter, and its value as a cut flower can hardly be over-estimated. It often happens that old-established clumps make a too vigorous growth in good soils, and the leads being unripened cannot rest and flower. These require rather drastic treatment in late summer. Lift the plants bodily from the soil and expose them for several days to the action of sun and air to check their growth, replanting them before the roots and leaves shrivel to a harmful extent. It prefers a warm border, and if planted at the foot of a south wall it will ripen thoroughly without trouble and the flowers will receive necessary protection from rain, snow, and sleet. Soils for this plant should be poor, and a system of starvation should be followed if the plants fail to flower. The type is the best garden plant of the set. It has long, arching leaves and lavender, sweetly-scented flowers 5 inches to 6 inches across, on stem-like tubes 9 inches high.

Var. angustifolia (= *lilacea*) has pale mauve flowers, in size and shape closely resembling those of a Spanish Iris. It requires a sheltered place, for the petals are easily damaged by the rough edges of the leaves among which they appear.

Var. alba is a pretty plant, but a weakling, exactly resembling the type plant, save in its colour and slightly smaller size.

Var. marginata is a taller, strong-growing variety, the leaves of which are often 3 feet to 4 feet long, the flowers above 1 foot high, feathered white on the margins of the petals. It hides its flowers among the foliage, but this is a good character, the flowers being thus protected from bad weather.

Var. purpurea is a purple form of the last-named (*speciosa*), with crimped petal margins.

Var. speciosa is the best plant for effective garden display of the whole set, as its leaves are narrow and tufted and the flowers are raised above them. Its colour is violet, with deep violet-purple or royal purple falls, and they span 6 inches to 7 inches in extreme diameter. It is very free-flowering, and clumps full of buds can be lifted and flowered under glass if required; indeed, all these plants if carefully lifted may be gently forced into flower, and this is an advantage if sharp frosts prevail at the time of flowering. In South European countries, where the plants grow and flower with great freedom, a considerable number of seedling forms is grown, some of them great improvements on the varieties described here, but so far as I am aware they have not been introduced to English gardens. Removal and planting should be done in September. *I. unguicularis* is excellent for cutting in winter. Plants under a wall will give an abundance of their frail and beautiful flowers at Christmas. The half-opened buds expand well and charm one with their colour and fragrance.

G. B. MALLETT.

there is in other parts of the country.

It is quite a pleasure to note how intensely all the details of culture are studied and the welfare of the plants thought out. I noticed that the plants were generally placed on open stagings with a free circulation of air, but if they have to stand on material charged with moisture, with an insufficient circulation of air, they suffer and deteriorate rapidly, becoming sickly from continual absorption of moisture, which they never have a chance to get rid of. The material that an Orchid is

growing in must be kept sweet by aëration. Copious waterings when necessary are beneficial, but if the compost remains long in a sodden condition the plant must suffer, first losing its root-action, and afterwards gradually sickening and perishing. I believe that many thousands of Orchids are killed through being allowed to stand on a cold bottom of wet material, and I attribute much of the excellence of culture in the collections I visited in Manchester to the plants being invariably placed on good open trellis stagings or on inverted pots, with air circulating freely around them from beneath.

JOSEPH GODSEFF.

TWO WINTER-FLOWERING IRISES.

Two charming winter flowers are *I. alata* and *I. unguicularis*, which is also known as *I. stylosa*. The former is a native of the Mediterranean region and generally known as the "Scorpion Iris." It has sheathing leaves 18 inches long, and pale blue flowers one to four in number, borne in the leaf axils, the



IRIS STYLOSA.
(Slightly reduced.)



IRIS ALATA.

(Slightly reduced.)

From a drawing by H. G. Moon.

GARDENING OF THE WEEK.

FLOWER GARDEN.

FLOWER BEDS AND BORDERS.

EXPERIENCED flower gardeners are quite agreed that the majority of the plants now used for making masses of bloom are very exhausting to the soil, and require to have a good foundation laid for their culture as do many of our vegetables. Few plants are more exhausting to soil than Verbenas, Heliotrope, Calceolarias, and Geraniums, and the unsatisfactory appearance which these frequently present can be as often attributed to the want of liberal treatment as to anything else. If deep draining and cultivation are needed to produce good crops, certainly such conditions apply to the flower garden. An accumulation of water about a bed of flowers is productive of evils that will thwart the efforts of good management in all other respects; it will keep down the temperature of the soil, prevent the natural action of the atmosphere, and lessen the chances of getting the soil pulverised and sweetened. Every flower-bed that is wet should therefore be well drained, as this is the first step in successful flower gardening. As to deep cultivation, the benefits derivable from it are so many that it would be difficult to enumerate them all. It opens the soil so that the roots can penetrate it more easily, and in dry seasons go down where the soil is moist and escape to a greater extent the evils of drought. In wet seasons the water escapes more freely to the drains or subsoil; many other benefits might be referred to, but these are sufficient to show that deep cultivation is of much importance in flower beds and borders. The extent to which manure must be applied must be regulated by the nature of the soil and conditions generally of the locality.

EARLY SWEET PEAS.

These are such favourite flowers that most people like to have them as early as possible. For this purpose the seed should now be sown in pots about 6 inches in diameter. If smaller pots are used the young plants are almost sure to become root bound and stunted before planting out time arrives. Use good loamy soil and well decomposed manure, half fill the pots with soil, pressing it in firmly, afterwards sowing the seed not too thickly, and leaving a margin for the reception of water, place the pots in a frame, plunging them to the rims in ashes or Cocoanut fibre, and keep the soil rather dry until the young plants appear; keep them as cool as possible, as coddling soon ruins them, and when the lights are drawn off the frame throw a piece of netting over it to keep off the sparrows, which will soon devour them. In January the plants may be assisted with weak liquid manure, and if at all crowded thin them out. The end of February is a good time for planting out, and in the meantime the ground should be well prepared by digging in liberally well-decayed manure.

PROTECTING TENDER PLANTS.

When it becomes necessary, owing to severe and continuous frost, to keep the glass covered up for a few weeks at a time, great caution is necessary in uncovering and exposing the plants to light and air when the weather changes quickly to a thaw. To uncover suddenly under such circumstances exposes them to such sudden reaction as will prove far more destructive than a degree or two of frost. The covering should not be touched till the temperature inside the frame has risen a few degrees above freezing, and then it should not be removed all at once, but by degrees. Bear in mind that plants are living things, and subject to injury from sudden and extreme changes of light and heat. Many never think of this, and so soon as it thaws off goes the covering, and the plants are injuriously affected even by the sudden flood of light, and if they have been slightly frozen they are again injured by a too sudden thaw. Frost should not be allowed to creep in if possible, but if it does it should be allowed to creep out. T. B. FIELD.

Ashwellthorpe Gardens, Norwich.

INDOOR GARDEN.

IXORAS

that have been exposed to what little sun we have had during the last few months, and that have also been kept considerably dryer, should now be pruned back rather freely, and some of the weaker wood should be cut entirely away. Advantage must be taken to give the plants a careful cleansing from scale, which so frequently affects them. They may be taken out of the plunging material for a few weeks, but do not allow the soil to become very dry or the plants will not start freely when required to do so. When the buds show signs of returning activity the plants may be repotted in rough fibrous peat, well decayed leaf-soil, coarse sand, and charcoal, and started into growth again. Such semi-epiphytal plants as

ECHEMEA AND BILLBERGIA

should now be syringed but very lightly, and then only on fine days, as it is undesirable that any water should remain long in the centre of the plants, or even in the base of the leaves at this dull season, unless the plants are elevated near the glass. Epiphyllums are beginning to make a good display in the stove houses. As the plants come into bloom, discontinue the syringing or the flowers will not last very long. To prolong the season of flowering, the plants should be grown and brought on in batches. As they pass out of flower a season of comparative rest must be given them, and any repotting that may be necessary should be deferred until growth is commencing. Any stocks of Pereskia may be grown to the desired height ready to be grafted in the spring. *Æschynanthus* will now require much less water at the root, and, whether grown in pots or baskets, should be raised near the glass.

EUPHORBIA JACQUINÆFLORA.

As the flowering shoots are cut allow the plants to become somewhat dry at the root until the turn of the season, when they may be placed in a warmer house to make growth for cuttings. Plants of *Gesnera fulgens* now passing out of flower should have a light position given them on a shelf at the cooler end of the stove until the foliage and stems die down gradually, when the corms may be stored away for some months.

ALOCASIAS

of the *metallica* and *thibautiana* types should not be allowed to become absolutely dry about the roots or the fleshy stems shrivel and frequently decay afterwards. These plants do not safely submit to a low temperature during the winter. I consider anything under 60° is unsafe for the species named, and for *A. macrorrhiza variegata* a few degrees higher will be advantageous.

CALCEOLARIAS AND CINERARIAS

are no longer safe in cold frames. A better position for them is on a slate or close stage, in a house where the temperature can be allowed to range from 36° to 40° at night, with a little air on at the apex of the house. Remove any decaying leaves, and fumigate once a fortnight to keep the green fly in check.

Wendover.

J. JAKES.

FRUIT GARDEN.

HARDY FRUIT.

THE weather being mild and open, the planting of all kinds of fruit trees may still be proceeded with, and many newly-purchased trees may be laid in on a dry border. See that plenty of fine soil or leaf-mould is placed about them to prevent frost (should it come) from descending to the roots, and in the event of the weather becoming severe a little dry Bracken placed among the shoots will do good service in protecting Peaches and Apricots, which are often not so well ripened as one could wish. Meantime, press forward the pruning and nailing of established trees, and top-dress all that are likely to derive future benefit from that operation. The nature and strength of the material used for this purpose will, of course, be governed by the condition as well as the varieties of fruit trees under consideration. Old trees, as a

rule, particularly Apples and Pears, are greatly benefited by a good dressing of frame ground manure, while young ones will become more fruitful if treated to a dressing of fresh loam, burnt earth, or charred garden refuse.

PEACHES AND APRICOTS,

indeed all kinds of stone fruit trees, require calcareous matter, of which there is nothing better than old lime rubble or plaster broken pretty fine and spread over the surface of the border. Strawberries, Raspberries, and bush fruits enjoy liberal supplies of good rotten manure, and the earlier it is applied the better. Peaches, Nectarines, and Morello Cherries, which have been unnailed and secured from injury by wind, may be well washed and dressed with Gishurst Compound when the weather is dry and mild, and the nailing of the latter may immediately follow the cleansing of the walls with soap-suds, brine, or lime-water. But Peaches must be left till last in order to retard the blossoms, and so preserve them from early spring frosts.

FIGS.

Where the early pot trees are being brought forward under the influence of fermenting material, see that it is renovated by turning and the addition of fresh leaves or short manure when there is danger of the bottom heat falling below 70°. Syringe the trees well every morning when the day temperature begins to rise, and again in the afternoon when the weather is bright and fine and there is a fair chance of the wood becoming dry before nightfall. When the buds are well on the move, and the embryo Figs begin to swell, help them forward by turning on a little extra fire-heat through the day.

EARLY VINERIES.

If the Vines have been bent down to a horizontal position to ensure an even break, get them tied up to the wires as soon as the most backward buds are on the move. Syringe with warm water when the temperature begins to rise, give air at 68°, close early, and syringe again if the afternoon is fine. Pay timely attention to disbudding, or rather the removal of weak breaks from which bunches of Grapes cannot be expected, and when the best growths become more prominent raise the night temperature to 58° or 60° on mild nights. If forcing has been commenced with fermenting material on the borders, make frequent additions, turning the whole mass and mixing the old with the new, in order to disperse the ammonia arising from the fermentation. Doubtless the young growths derive some nourishment therefrom, and, besides, it prevents insects flourishing.

Madresfield Court Gardens.

W. CRUMP.

KITCHEN GARDEN.

MUSHROOMS.

A GOOD deal of attention should be bestowed upon these at this time, for the beds made up during the next few weeks will produce Mushrooms at one of the most important periods of the year. I am no advocate for collecting the droppings devoid of litter; a fair amount of this incorporated tends, in no slight degree, to keep the beds from quickly becoming cold and wet, a condition most disastrous to the production of Mushrooms at any time of the year. Collect the material and place in an open shed and turn twice at intervals of three or four days; it may then be made into a bed, taking care to ram fairly firm as filling in proceeds. A stick plunged obliquely into the centre of the bed, or, better still, a plunging thermometer, will be a guide in determining when the bed should be spawned. A temperature of 75° will not be too much provided it is just on the decline.

POTATOES IN PITS.

Preparations may now be made for planting a good breadth in frames or pits. In many gardens these are solely depended upon for the production of the early supplies of tubers, for although a few dishes may be had extra early by cultivating in pots, as advised in a recent calendar, yet large quantities cannot be expected that way. A brick pit is an ideal place for early Potatoes planted out, as then a good depth of tree leaves, with a little

stable litter incorporated, can be put in, and after well treading place a foot, or thereabouts, of good garden soil in which to plant the tubers.

FORCING BEANS.

Larger batches of these may be sown in pots than was advisable a short time ago, because by the time the plants are in full growth the days will be lengthening, and the growth made will have a better chance of keeping sturdy, thus ensuring heavier crops of full-flavoured pods. Good varieties for present sowing are Early Wonder, Osborne's Forcing, and No Plus Ultra.

PEAS.

Seed may now be sown in quantity for providing plants for putting out later on for the earliest crop of Peas in the garden. The site they are to occupy, and the number of rows to be grown, should first be decided upon, as then it can be judged how many will be required. Some growers sow in specially made narrow and shallow boxes, having a movable side; this can be removed at planting time, and the whole of the plants slid out into the prepared drills without any disturbance of the roots. If pots are utilised they should be 3-inch, and six or eight seeds may be sown in each. Half fill these with some old potting soil and loam, and after sowing the seed cover with half an inch of soil; room will thus be left for a slight top-dressing when the plants attain 2 inches or 3 inches high, which will be highly beneficial to them at that time. Each grower has his favourite varieties, and among so many good ones now in commerce it is difficult to advise. I can, however, confidently recommend Early Morn, Chelsea Gem, and English Wonder as being excellent for early work in every way.

H. T. MARTIN.

Stoneleigh Abbey Gardens.

INDOOR GARDEN.

WINTER-FLOWERING BEGONIAS.

SEVERAL good groups of Messrs. Veitch's winter-flowering hybrid Begonias may be seen in the Begonia house at Kew, some of the plants measuring 2 feet high and 1 foot through, and carrying from twenty to thirty fully-expanded flowers, and making a very bright and effective display. They have a flowering period of about six weeks to two months, and are therefore very acceptable. They are well worth the attention of those who need plenty of bloom at this dull season. The varieties Julius, double, pink; Venus, single, rosy red; Ensign, double, light red; and Mrs. Heal, rose-magenta, are vigorous growers. The varieties John Heal and Ideals are of smaller and more compact habit, and are very profuse bloomers. Sometimes cultivators fail with these plants, mainly through keeping the root-stocks too dry during the resting period. They should not be rested so completely as the ordinary tuberous Begonia; the soil should be kept just moist, not dry. The old root-stocks should be started into new growth about May, and the young growths then taken off and rooted. Take care not to keep the propagating frame too close, as they are apt to damp off like all Begonias, owing to their succulent nature. A warm and moist atmosphere suits them very well until they are established in their flowering pots, which should be of 4½-inch or 6-inch diameter. Afterwards an ordinary greenhouse temperature suits them very well. They are rank feeders when

in full growth, and should be liberally supplied with some kind of manure. If allowed to become dry during the growing season, smaller and less sturdy plants are the result.

Kew.

W. H.

EXACUMS.

AMONG winter-flowering Orchids and Begonias, two of the principal groups of plants for winter use, we have no blue flowers. Thus Exacums, with flowers of various blue and purple shades, are valuable during the shortest days of the year.

Seen occasionally here and there at various exhibitions and shows during the last fifty years, these exquisite plants are yet, however, far from popular. This is accounted for by the difficulty of keeping up a stock of warm house annuals and biennials when both home and imported seed is

Their flowers are nearly four times the diameter of the Socotran ones, for each measures 1½ inches to 2 inches across. A similar colour range is again met with here, for *E. zeylanicum* has usually violet and *E. macranthum* purple-blue flowers. *E. macranthum* is now sometimes included as a variety of the last named.

Exacum affine, a shoot of which is here illustrated, is at once the smallest and most profuse flowering, and also the most easily procured and cultivated species. Its blossoms are very fragrant. Those plants that show any undesired washy lilac colours should be thrown away, but otherwise the variation of tone is a pleasing one, and the bluish colour of the petals contrasts well with the bright yellow stamens. The combination of these two primary colours is far more frequently met with in effective arrangements of flower gardening than in an individual flower. For some time a large batch

of *Exacum affine* was placed during the winter months beneath a large plant of *Solanum seafortianum*, which in summer also showed the same showy contrast of yellow and blue. Exacums casually pass for *Solanums*, although this is denied in their structure and by the neat habit and leaves. The splendid colour of the petals, too, may suggest their true relation with the *Gentians*.

Professor Bayley Balfour fully investigated the plants of the island of Socotra some twenty years ago, and among the valuable horticultural results are this *Exacum*, and also *Begonia socotrana*, one of the parents of *Gloire de Lorraine* and other winter-flowering Begonias. Seed of *Exacum affine* should be sown in March for plants to flower during the shortest days, but later sowings are also useful and make a good succession. It is very small, and is best sown thinly but slightly covered with soil. A glass placed over the seed pan will render frequent waterings unnecessary. During their entire life the plants may be kept in an intermediate house. Prick off the seedlings before they crowd each other, and by July they will be ready for their 3-inch flowering pots. They are effective, too, in pans, placing a dozen or so plants in each. The shoots require no pinching, for this little annual, like many others, assumes a good form naturally. After the flowers are faded the plants should be placed on a shelf, &c., near the light to ripen their seed.

The above treatment also serves for the other beautiful members of this genus, although they are less quickly and easily grown. Imported seed should be sown in small lots extending over several months. This will give flowering plants at different portions of the year, and if one batch fails to set seed, another may

prove more amenable. The flowers should always be dusted over with a small brush to ensure fertilisation. There are about thirty Exacums, and most are worthy of cultivation, if only they could be captured and tamed. Some are straggling plants, for they grow among long grass. It is probable, however, that could home-saved seed be secured for several years and each year's plants selected, the Exacums would lose this and other traits and become good garden plants.

E. bicolor, with very palest violet or white petals, margined with purple, is a pretty Indian species. The flowers are almost as large as those of *E. zeylanicum*. It is now, perhaps, out of cultivation. Because of its slender stems it appears best massed together when its winter blossoms are effective.

The light soil and careful treatment given to warm house Begonias will also suit Exacums, and



EXACUM AFFINE.

difficult to procure. In many cases this could be remedied, as when on their native hills and meadows seed is borne abundantly. In this country the dull and cold time of flowering is often inimical to seed production. Four Exacums have lately been seen in London, two of which are natives of Socotra and two of Ceylon, and the pair introduced from both the African and Asiatic island are noteworthy in this—that each plant in the pair is closely related. The two Socotran plants have small flowers, but these are very profusely produced. In *E. affine* the flowers are rather variable, lilac-blue to ultramarine, with stalked leaves, while *E. Forbesii*—the *E. caerulea* of the "Index Kewensis"—has a purple-blue colouring and sessile leaves.

The introduced Cingalese Exacums *zeylanicum* and *E. macranthum* are taller plants, reaching to 24 inches in height, although usually less.

may encourage the large-flowered sorts to prolong their years. Over-watering or over-potting is likely to cause the plants to wither suddenly and in a day or two die away altogether.

D. S. FISH.

Royal Botanic Gardens, Edinburgh.

NURSERY GARDENS.

CHRYSANTHEMUMS AT FRAMFIELD.

FOR the last quarter of a century no one has done more for the Chrysanthemum than Mr. Norman Davis. His name is quite a household word among Chrysanthemum lovers. The writer of this note well remembers his first visit to Camberwell some fifteen or sixteen years ago. The display on that occasion was a remarkable one, huge Japanese making a bold bid for popularity against their neat and even rivals in the incurved section. In those days the incurved varieties were more popular than they are to-day, and the run on such sorts as Violet Tomlin and Miss M. A. Haggas on the occasion of their introduction is well remembered. All this is now changed, and upon the removal of Mr. Davis to his new establishment at Framfield, which is near to Uckfield, Sussex, his skill as a grower has been most pronounced. The pure air of this charming Sussex village, which is most pleasantly situated, together with a splendid system of culture, has enabled Mr. Davis to represent the Chrysanthemum in a way that it has never been seen before. His large and handsome groups at the meetings of the National Chrysanthemum Society, the Royal Horticultural Society, Edinburgh, and several important provincial centres have been marvels of cultural skill, and have also served to illustrate his undoubted taste in arrangement.

As a raiser of English seedling Chrysanthemums Mr. Davis has been very successful. For years before many persons were aware that it was possible to save seed in this country, this grower had succeeded where others had failed, and his catalogue in the earlier days will serve to prove what is here stated as a fact. In recent years, too, the seedlings at Framfield were always worth a journey to see, and many show-boards and vases have been graced with blooms that emanated from this source. Other raisers in this country are indebted to Mr. Davis for valued information and advice as to how they should proceed in this matter, and he has always willingly imparted his keen knowledge of the subject.

No finer flowers of Mme. Carnot have been seen than those put up so frequently by Mr. Davis. Although he is not growing so many this season, there were many noteworthy specimens. The beautiful yellow sport G. J. Warren from the last named is regarded with the greatest favour at Framfield. There is another Japanese bloom which Mr. Davis says is the finest variety in cultivation, and this is none other than General Hutton. The flowers are very large and full, yellow, flushed bright yellow, and the plant has a splendid habit. Other Japanese that call for special mention are F. S. Vallis, which is of easy culture; Mrs. A. H. Lewis, a very full flower, with long flat florets, and of a pleasing shade of deep rose-violet; Mrs. C. Beckett, originally exhibited as Lady Pearce, is another very full flower, with long, fluted florets, making an exhibition bloom of large size. It is white, slightly tinted green. An ideal white Japanese for exhibition is Mrs. Guy Paget; it has long florets, and makes a handsome bloom. There is one novelty, however, that Mr. Davis regards as the finest thing of the season. This he is sending out under the name of Beauty of Leigh. The petals are long and of medium width, gracefully drooping and curling, and incurving at the ends. When finished they are large and handsome and of good substance. Colour bright buttercup yellow with paler reverse. Another good flower is James Grant; this is an improved Sensation, and is a purely double flower; colour rich amber, flushed chestnut crimson. Beauty of Sussex is a novelty that has been shown several times. It is a fine full flower

having very long petals, and is somewhat in the way of Mrs. G. Mileham, the colour deep rosy purple. Very fine, indeed, is Miss Stopford. This is a large spreading flower, with long, drooping petals, colour creamy white with greenish centre.

Alfriston is regarded as the best of its colour, which is a bright and rich maroon-red, with an old gold reverse. Commonwealth, that so many thought to see much of this season, is a pure white, with neat and long drooping florets, after the style of Nellie Pockett. Ernest Penford, too, is thought well of; this is lavender-pink, and a plant of excellent habit. The intense crimson-scarlet colouring of George Penford stamps the bloom as one much to be desired, its bright gold reverse also enhances its value, and the habit is dwarf and sturdy. A massive incurved Japanese is Lady Conyers; it is an exhibition bloom of good substance, and the colour is a pretty shade of rose-pink, with a silvery white reverse.

There is no doubt about the value of the variety Miss Mildred Ware for exhibition. It is said to be a seedling from Mme. Carnot, but is of easy culture, and the colour is pale amber overlaid with a rosy terra-cotta colouring; the flowers are very large.

There is no finer Japanese variety than Miss Olive Miller, the colour of which is a beautiful shade of clear pink. The extraordinary merits of the variety Mrs. F. W. Vallis are now so well known that a word in its praise in the Framfield collection will not be out of place. It is a flower of beautiful form and large size, and has both depth and breadth; the colour may be described as crimson, streaked with gold, and the plant has a robust constitution. I noticed magnificent blooms of that fine variety Mme. Paolo Radaelli. The foregoing are but a tithe of the good things to be seen at Framfield, but space forbids mentioning the names of other noteworthy sorts.

Mr. Davis has not lost his old love for the incurved sorts, and finds there are numerous growers throughout the country who appreciate the larger flowers of the more recently introduced sorts, which are finely represented. For years the Anemones and Japanese Anemones have been well done here. Mr. Davis knows so well how to get the flowers nicely finished. The Pompons and Anemone Pompons deserve a special notice of their own, and in the excitement incidental to the exhibition of the big blooms these charming little flowers are not forgotten. Mr. Davis has grand plants of the rich yellow Pompon William Sabey, carrying hundreds of partially disbudged sprays of blooms; these plants had been lifted from the open, and for decorative uses they provided abundant material.

Single-flowered varieties, both the large and small sorts, have been a speciality here for years. It is only when they are seen as grown by Mr. Davis that their real decorative value can be fully appreciated, and the wonder is that the garden-loving public do not take more interest in them. Of the small-flowered section the following are excellent: Ladysmith, bright rosy pink; Mary Anderson, pale bluish; Miss Annie Holden, pale buff-yellow, sport from the last named; Miss Rose, pale pink; Will Jordan, a lovely carmine; Treasure, a charming miniature bright yellow; Dorothy, a chaste white, tinted bluish, very dainty; Mrs. Brown Potter, a pure white, free; Miss King, pure white, in graceful sprays; Star of Honour, white, prettily lined and tinted pink, and very free flowering; Rose Perfection, a bright rose; and many others.

Of the large-flowered sorts there many excellent examples, the better ones being Connie, silvery-white, slightly tinted bluish; Miss Ina Money, a very fine orange yellow, edged crimson; Miss A. Munford, another orange yellow, shaded crimson-brown, very free; G. W. Forbes, a very rich and striking crimson-amaranth; Princess of Wales, a charming flesh pink colour with white ring round disc, splendid habit; Victoria, still one of the best creamy primrose sorts; Sir General Bullough, a splendid rich yellow of capital form; White Perfection, a seedling of 1903, somewhat similar to Daisy Brett, but earlier, and half the height of the latter variety. A very distinct and pretty single is Thomas Suter; it has long and narrow florets, prettily notched, and white, with a slight

rosy tint; and Oldfield Glory, a white flower, of good form, and with a yellow disc. Specially fine were the large-flowered single blooms of Queenie Jordan. The flowers have long and broad florets, which curl prettily, and with the yellow disc make a charming picture.

The early-flowering sorts are extensively grown at Framfield, and in this department there has been a great advance. Mr. Davis was one of the chief pioneers of the early Chrysanthemum.

Michaelmas Daisies are also well done here, the late-flowering Aster Amellus var. Framfield, a lovely deep blue form, being raised in this nursery. The collection embraces all those that are worth growing.

The culinary Peas, which are grown in one house, are a sight worth seeing in the early spring, and in this culture under glass Mr. Davis has been singularly successful.

Sweet Peas, too, are grown under glass for market, and the early supply of these fragrant flowers has done much to popularise them.

C. A. H.

JAPANESE CHRYSANTHEMUMS AT THE MONKHAM NURSERY, WOODFORD.

FOR several years past the blooms and plants exhibited by Mr. R. C. Pulling from this establishment have placed him in the foremost rank of our Chrysanthemum experts. This grower keeps himself abreast of the times by acquiring all the new and choice sorts, and exhibiting them in their proper character. This is saying a great deal, but results have verified the facts as stated. A commodious glass structure, specially erected to flower the large blooms in, is always a sight worth seeing. Although there was a lesser number this season than usual, the plants were all bearing blooms of handsome form, good colour, and wonderful proportions. Yellow Japanese sorts were superbly fine, and the more striking examples of cultural skill were seen in blooms of F. S. Vallis, perfect form; Mrs. T. W. Pockett, very much disposed to damp this season; Kimberley, a fine clear yellow; G. J. Warren, the lovely yellow sport from Mme. Carnot, which appears to do wonderfully well here; Le Grand Dragon, orange yellow; Lord Ludlow, a lovely golden amber, and of enormous size; and Mrs. E. Thurkell, a deep yellow bloom of great proportions. Sensation is another giant, its rich bronzy-yellow being most effective, and the breadth and substance of the petals really wonderful.

The massive-looking blooms of Mrs. Barklay, with their broad strap-like petals of a rosy-mauve colour, were often seen in handsome form. The chaste blooms of Miss Elsie Fulton stamps this variety as one of the very best types of the incurved Japanese section. The white is a pleasing one. The pink-tinted blooms of Mrs. E. Hummel were very refined, and the gracefully-drooping petals, of splendid length, build a beautiful flower. As in many other establishments, the blooms of Mrs. G. Mileham have again proved their unrivalled consistency. Silvery-mauve is an apt description of the colour, and the plant is of easy culture. H. E. Hayman, sent out with a flourish of trumpets, is undoubtedly a good thing, its effective orange colour, which is shaded reddish bronze, being desirable in any collection. Of Mafeking Hero we have heard much this season, its lovely deep bronzy colour, together with its good form and handsome proportions, stamping it as a splendid exhibition flower. Immense blooms of Australia were often in evidence, as were numerous charming and refined blooms of the waxy white Miss Nellie Pockett.

The somewhat unique colouring of Lily Mountford was highly appreciated in the large and full blooms in this collection. There is no doubt whatever that the flowers of the last-named variety are still fully up to exhibition standard. Mr. Pulling has solved the difficulty of how to develop the handsome and refined blooms of Mme. Carnot successfully. The plants are not encouraged to develop coarse and robust growths, and as a con-

sequence large full flowers are forthcoming. Many thousands of plants are grown for commercial purposes. The display in this department begins quite early in October with such yellow sorts as Mychett Beauty and Soleil d'Octobre, and in conjunction with the former the bronzy-buff sport from the last-named, known as Bronze Soleil d'Octobre and Source d'Or, are used largely for market purposes. There are other sorts for successional displays, in which Tuxedo, Ivory, and W. H. Lincoln among other late varieties are grown extensively. This nursery is situated just free from most of the London fogs, and in consequence the flowers are beautifully fresh and clean. C.

THE FRUIT GARDEN.

APPLE QUEEN ALEXANDRA.

AMONG the several very promising late Apples which Messrs. W. B. Rowe and Son of Worcester have on trial in their nursery, this new variety stands out prominently, and even in this untoward season has proved itself a good bearer. As recently mentioned in *THE GARDEN*, page 290, the object that Messrs. Rowe and

To start with, it is late blooming, never expanding its flowers before the second week in May. It is also late keeping, being in season from mid-January to mid-April. The tree is a strong upright grower, short jointed, and bears regularly large crops of fine fruit, solid, and heavy. In appearance it takes after Alfriston, and is almost identical in size. The colour is a yellowish green, with a red flush on the sunny side. It will be introduced as a culinary variety.

Worcestershire.

ARTHUR R. GOODWIN.

CHOOSING APPLE TREES.

(Continued from page 342.)

A FEW hints may be given as to the actual purchasing of the trees. They may be bought from one of the big firms at a distance, or they may be bought locally. Each method has its advantages and disadvantages. If bought from a distance you have no choice in the trees; if a given variety you cannot get them just when you want them, and they may be a good many days on the rail, and finally arrive in frosty weather, and consequently suffer from exposure before they are planted, however well they may have been packed. If bought locally, though you may choose the actual trees you buy, you often cannot get just the sorts in just

four year old, but, apart from that question, in choosing amongst a lot of three year old trees, say, we naturally want the largest of that age. This is generally a mistake, as these are often strong-growing, either from the greater strength of the stocks upon which they are worked—and layered Paradise stocks vary a good deal in strength unless very carefully selected—or from the greater vigour of the bud or scion; perhaps from a combination of both causes. Some time may elapse before such trees bear. On the other hand, we should avoid small, stunted trees with spurs all over the branches, however fruitful they may appear likely to be. We must have a tree that will grow well, for until we get an established tree of some size, even as a bush, we can get no quantity of fruit. The best trees to choose are those of short-jointed and firm growth, with fruit-spurs on the two year old wood, but with no fissures of any sort in the bark of the stem or branches, as these are a sure entrance for canker, fungus, and woolly aphis. We should avoid trees which have not made a perfect union with the stock, and those which are of ugly shape or ill-balanced growth—that is, with much stronger shoots or branches one side of the tree than the other—for such rarely make good shapely trees, the unequal strength of different parts of the tree increasing with each year's growth.

The uncertainty of the character of the soil and climate makes any suggestions as to what sorts to buy for some unknown garden somewhat hazardous, but I will venture to mention a few which combine quality with productiveness and moderate hardiness. These are three essentials, and it is not worth while planting any Apple, however good, if any one of these three essentials are absent.

Desert Apples.—Lady Sudeley (September to October), very handsome, and very good when eaten straight from the tree; Cox's Orange Pippin (November to January, or later if well stored), not in a cold, wet soil; Allington Pippin (November to January), somewhat like the preceding, not of such excellence, but hardier; Adam's Pearmain (December to February), scarlet conical fruit of good quality; Mannington's Pearmain (January to March), one of the best, but must have a well-drained soil; Duke of Devonshire and Brownlee's Russet, two good hardy Apples, in season from February to April, the latter rather ugly; and Sturmer Pippin (February to May), ugly, unless in very sunny position, but very good. Of these, Lady Sudeley bears fine fruit at the tips of the last year's shoots, which should be remembered in pruning. It is best as a dwarf, as are also Sturmer Pippin and Mannington's Pearmain. The Duke of Devonshire and Allington Pippin are the strongest growers among those mentioned.

Cooking Apples.—None in season before October are given, as in August and September one generally has plenty of windfalls, which, though not so good as the best Apples in season in these months, are yet generally used, and one does not like to waste them. Warner's King (October to November), very large; Golden Noble (November to December); Lane's Prince Albert (December to February); Wellington (December to March or April), very firm and juicy, but cankers in a wet soil; and Bramley's Seedling (February to May), a rampant grower, needing some amount of root-pruning to bring it into bearing. Of the above, Warner's King is best as a bush, as the great size of the fruit renders it especially liable to loss by wind. Golden Noble bears fine fruit at the tips of the previous season's shoots. It forms a good standard, as does also Bramley's Seedling, the latter an especially strong one, though unproductive at first. To the above might be added Dutch Mignonne and Fearn's Pippin, two good double-purpose Apples, very prolific, in season from January to March or April.

ALGER PETTS.

RECENT PLANT PORTRAITS.

THE Botanical Magazine for December contains portraits of

Agapetes Moorei.—Native of Sikkim. This is a handsome vacceaceous shrub, with bunches of pale orange tubular flowers, requiring the temperature of a cool Orchid house.



APPLE QUEEN ALEXANDRA. (Natural size.)

Son have in hand is to produce by means of careful cross-fertilisation a race of late-flowering and late-keeping Apples, and it is certainly no exaggeration so say that their efforts in this laudable work are being watched by fruit growers, not only in this county, but also in the adjoining counties, with no little interest.

Queen Alexandra, the variety figured to-day, has so far only been locally exhibited, and for the first time this autumn, but it will suffice to say that experienced growers who have made acquaintance with this new fruit have been much pleased with it. There is one peculiarity about nearly all of Messrs. Rowe's seedlings, and that is most of them have Blenheim Orange for one of their parents, and although this grand old variety itself never becomes fruitful at an early period, its offspring do not show this same reluctance to commence bearing—at least, this is Messrs. Rowe's experience.

In several respects Queen Alexandra resembles King Edward VII., although raised from quite a different cross, i.e., Blenheim Orange × Alfriston.

the form that you want, while the trees may not have been reared under such skilled treatment as in the big nurseries. But you can get them the day you want them, as a rule, and plant them the same day as they are taken up—no small advantage to the trees. As an instance of want of skilled treatment in the rearing of trees, I saw some fan-trained Plum trees at the Chiswick show. There were two or three shoots in the centre, going straight up or nearly so from the stocks to a height of 5 feet, where they had been tapped, being about as large round as a man's first finger there. Anyone who knows anything about fan-trained trees knows that shoots should not go straight up in the centre in this fashion, as they make gross growth which is seldom fruitful. They were exhibited by a small grower, and bear out the truth of a remark made above. No good nurseryman in a large way of business would send out such trees.

It is a temptation when choosing fruit trees to pick out the biggest. It is generally held that three year old trees are better for planting than

Meryta Denhamii.—Native of New Caledonia and New Hebrides. Also known under the synonym of *Aralia reticulata*. This is a plant of no beauty, and is of merely botanical interest.

Echidnopsis Somalensis.—Native of Somaliland. This is an Asclepiad of the family of the Stapeliæ, with inconspicuous reddish brown flowers, and of merely botanical interest.

Restrepia antennifera.—Native of Colombia. An Orchid of the Dendrobæ family, with small brownish flowers of no beauty.

Cotyledon undulata.—Native of South Africa. This is a plant of the Crassula family, with stout fleshy foliage and bunches of flowers borne on tall stems of a yellow and light orange colour, tubular form, and pendulous habit of growth.

The second part of the *Revue Horticole* for November figures a group of five varieties of *Mesembryanthemum*, known in France as *Ficoïdes*, namely, *M. splendens*, with large rose-coloured flowers; *M. aureum*, with light orange flowers; *M. echinatum*, with small yellow flowers; *M. lacerum*, with deep rosy double flowers; and *M. retroflexum*, with small deep orange flowers. The first part of the same periodical for December figures

Gloriosa Leopoldi.—A native of the French Congo district. This is a very handsome stove liliaceous trailer with large flowers of a bright golden yellow. One of the finest of the family.

Rosa polyantha Mme. N. Levassieur.—*Le Jardin* for November 5 publishes a portrait of a large bunch of this most beautiful new hybrid Rose, which is the result of a cross between *R. polyantha* and Turner's Crimson Rambler. It exactly resembles its last-named parent in form and colour, and has the additional merits of being dwarf and bushy in habit and perpetual blooming. This plate has also great interest from being by far the most successful effort I have seen in colour photography from Nature. W. E. GUMBLETON.

GARDENS OF JAMAICA.

(Continued from page 291.)

THE GRAPE FRUIT

is not unknown in England, though the kind which is brought from the Western Islands and sold in this country is inferior to those which are obtained in some parts of Jamaica. A lady residing in England has some of the fruit sent her every year which is produced on her property in Jamaica, and which is considered to be of a superior kind. The Grape Fruit is like a very large Orange or a very small Shaddock. It is about the size of what in the East Indies is called the Pummelo, which is, however, of the Shaddock species. The tree is like that of an Orange, of very large growth, with the same rich dark foliage and aromatic blossom. But what renders it peculiarly interesting is that it is thought by many persons to be the tree of the fruit of which our first parents were forbidden to eat, and it is therefore called "The Forbidden Fruit." This appellation, however, is more likely to apply to the Pomegranate, which seems to be represented in many Egyptian inscriptions. We have spoken of

THE SHADDOCK,

the fruit of which is sometimes met with in England. Each of these is about the weight of a dozen Oranges, but the form without and the appearance within are of the same character. The skin of the Shaddock is very thick, and the colour of the fruit within is rather of a yellow-white or of a beautiful pink-red. The red Shaddock is most esteemed, and there are particular parts of the island from which the best are obtained. Like other fruits, they differ materially in their kind and quality. The leaves are very much larger than those of the Orange, though the form and colour are the same. There is also a correspondence in the size of the tree. Few sights are more remarkable than that of a Shaddock tree bending under the weight of its huge fruits. A poor and unattractive tree is

THE NEESBERRY,

but producing a fruit the excellence of which cannot be surpassed. When arrived at maturity

the size varies from that of a small to that of a rather large Apple, but it has more the form of a Pear with a flat top and a pointed end. Its colour is that of the Russet Apple, and is the same whether the fruit be ripe or green. Like several other West India productions it is not allowed to ripen on the tree, but when sufficiently advanced it is gathered and put in some warm place. When ripe it becomes softer than a Pear, and breaks asunder as easily as a Medlar. The long black seeds are found within. The rest is a delicious pulp, all of which is eaten, leaving but the thin outer skin. There is nothing to which the flavour of the Neesberry can be likened, but that of a very fine Pear approaches most nearly to it. The finest are obtained in some of the eastern districts of the island.

Another fruit is seen on that large, straggling tree, which is found in all parts of the island. That is

THE STAR-APPLE.

In some we see the fruit of a purpler colour, of the size of a huge Apple, hanging in all directions from the limbs; others have a green appearance. The green-coloured Star-Apple is the most esteemed. Our attempt to get them off the tree by throwing missiles at them will altogether fail, so tenaciously do they cling to their parent tree. If we wish to have them we must make use of a stout stick, or, when they are beyond our reach, climb up as best we can. The natives have a word to denote covetousness or tenacity of purpose called "cub-bitch." They speak of a covetous person being "cubbitch like a Star-Apple!"

We have now, however, obtained our prize, and proceed to taste it. Cutting the fruit through transversely our knife comes in contact with some seeds of the same kind as those of the Neesberry. We have no difficulty in seeing for what reason this is called the Star-Apple, for the divided half has within radiations that give it a starlike appearance. The colour of the pulp in the purple-skinned fruit is a mixture of purple and white. With a spoon we scoop out all the inner pulp from the skin. It is very good when eaten thus, though there is something about it of the roughness of the half-ripe Damson. But the proper way of eating it is by mixing it with the juice of an Orange, and in that form few things can be more palatable. It is thought by some persons when thus mixed to have a resemblance to Strawberries and cream. But, although not a contemptible substitute, it cannot be justly compared to the original, and is commonly called "Jamaica Strawberries and cream." We hear the sound of other familiar names, and

THE CHERRY

is now pointed out to us, growing, as all the other fruit trees do, wild amongst the pastures or mountain woods. And a comely tree it is far more beautiful in appearance than our own Cherry. Its foliage is thick and dark, and its form round and symmetrical, and, when it is laden with its beautiful white blossom, the white seeming to cover in the green and the sweet perfume filling the air, we may well call to mind the old friend we have left in merry England.

Now we shall find an excellent opportunity of watching the humming-birds. They feast on the insects which are found in the flowers of the Cherry, and as they poise on their wings, fluttering away while the beak is engaged in extracting the insect, they seem like huge bees seeking out the honey, with which each blossom is charged. They fly hither and thither, passing so near to us that it seems as if we could knock them down with the hand, their exquisite golden plumage glittering in the sun. After a few weeks we shall find each of these blossoms converted into a little bright red Cherry. They are eatable, but are never eaten; yet we question whether they would be so little esteemed if a party of hungry English boys or girls were by. They are perfectly sweet, but want some aid to relieve them of their insipidity. They are also very sticky, the outer skin being very thin. What, however, man rejects, the birds devour with no little delight. The well-grown tree which we see next to the Cherry is

THE HOGBERRY.

It produces a very small fruit in great abundance, about the size of a large Pea. These possess rather a pleasant flavour, but they are in general left for the use of the birds and the pigs. The wood of the tree is, however, very good, and is used for house-building, being very like our English Elm. The appearance of the Hogberry is like that of a small Elm.

THE ALMOND

is the name of an old friend, but belongs to a different family. It is much larger than the English Almond and that found in the East. This tree likewise produces a blossom and a seed. It has no resemblance to the Almond in these respects. It is the smell of the wood, which is most fragrant and delightful, to which its name is due, and which has the exact character of that of the finest bitter Almonds. A graceful and well-formed tree is

THE CHEREMELIA.

Its foliage is light and its branches cluster round each other with perfect symmetry. From the branches a large quantity of a small fruit hang down. These have a form like a very small Sand-box, and when ripe they are of a pale yellow colour. They are too acid to be eaten as other fruit, but make a very good preserve.

THE CHEREMOIA

is quite distinct from this fruit. It is more like a Sweet Sop. The trees are very similar in form and appearance, but the fruit is of a very superior kind and is not so common. Then

THE CUSTARD-APPLE

is very highly and deservedly esteemed. The tree has something the appearance of a small Star-Apple. Its branches are straggling, and its foliage scanty. The fruit has a smooth skin. The inner part when ripe has the same kind of pulp as the Sweet Sop or the Cheremoia, with long, black seeds. But the delicacy of the pulp and its custard-like taste give to it the peculiar name.

THE BITTER-WOOD

has of late years been widely known in England. It is from the wood of this tree that the cups and vessels are made which are so often used in a medicinal character. Water when put in them becomes in a few minutes strongly impregnated with its bitter flavour, and is a very valuable tonic. The tree attains a considerable size. It is well covered with leaves, which are of a medium tint. The wood is too soft to be much used for building purposes, but as a medicine its worth is very great. It has been suggested that it might be used with advantage instead of Hops. A tree which is very common in the East is also known in Jamaica. It

THE LOCUST.

It is known that there is a fruit Locust as well as an insect which is called by this name. The tree is of considerable size, and from it are suspended long Beans, which appeared to be the food of which John the Baptist ate. These Beans are very sweet, with a flavour not unlike honey. Great quantities have at times been brought from the East and used as food for cattle and horses. Looking down from the Santa Cruz Mountains upon the low country we may observe some large tracts of land, which are called the Savannas. The shrubs and trees in these parts are small and scattered, but among them will be seen in great abundance

THE INDIGO PLANT.

It is a shrub of some size. The small and scanty leaves are ranged in regular succession along the branches. A very small Bean grows on it in great abundance. It is from this plant that the valuable colour is obtained. No attempt is made in these directions to manufacture the powder. The chief difficulty would be the want of water, of which a great deal is needed in its preparation, and in these districts where the plant abounds they are subject to continual droughts, and at all seasons the supply of water is small.

We now wend our way to the sea coast. Vegetation here is stunted and small. Except the

Cocoanut trees, few others reach a great size in these sandy grounds. There are, however, many plants which would be thought very rare and remarkable in England, and the beautiful shells which in most parts line the shore would be sufficient to excite our interest and attention. But to these shores we are about to bid adieu. It is pleasant to think of home—the society of the dear friends whom we hope soon to rejoin in brave old England. But amidst all our pleasures and all our pursuits we shall never fail to hold in happy remembrance the many days and hours we have passed amidst “the Green Glades” of the “Isle of Springs.”

NOTES FROM THE MARKETS.

MARKET CHRYSANTHEMUMS.

ALLMAN'S YELLOW.—This plant, which received a first-class certificate from the National Chrysanthemum Society committee on the 8th inst., will undoubtedly prove worthy of a trial by all growers. The flowers are of medium size, rich deep yellow, of good substance, and well filled in the centre. A group of pot plants, and also a quantity of cut blooms were shown, and attracted a considerable amount of attention. The appearance of the plants did not suggest that they had been subject to very liberal treatment, and probably under different conditions the flowers would come larger. It was shown by Mr. Allman, of Wilmington, Dartford.

Nivette.—This was shown by Messrs. Wells and Co. at the last meeting of the Royal Horticultural Society. It is a pure white. The flowers shown were grown naturally, without any disbudding, and a number of good blooms were on each stem. Its great recommendation is that the flowers are of good substance, and last considerably longer than many of the whites; it is also most prolific. This is not quite a new variety, but it has hardly received the attention that it merits.

Gratianopolis.—From Messrs. Cannell and Sons, deep yellow, with shading of bronze, incurved petals when disbudded. This makes fair sized flowers, not too large, and grown naturally they open well. I have flowers before me that have been cut for over a fortnight and they still look fresh.

L. H. Humphrey.—Of similar form but rather larger. As shown by Mr. H. J. Jones it had the appearance of making a valuable market variety. The colour, rich crimson-red with a brownish shade, is very distinct, and of a shade that is sure to sell well. At the present time all of these bright colours are much in demand.

Framfield Pink (Mme. Felix Perrin).—This is now one of the best pink varieties we have and a general favourite with florists. Messrs. Low and Co., of Uxbridge, are cutting it in large quantities. The colour appears to be better than the original as it came from France. The flowers are only of moderate size, but they are well filled in the centre, and a great point is that the florets are of good substance. It is certainly one of the most distinct and useful market varieties we have. A. HEMSLEY.

MISCELLANEOUS.

OVERGROWN FLOWERS, FRUITS, AND VEGETABLES.

IT seems to me that this is a subject where individual tastes count for much. For instance, Malmaison Carnations appeal strongly to some, while others again can say nothing too bad about them. The huge Japanese Chrysanthemums, too, have many admirers, and there are many also who would not tolerate them in their gardens. So long as there is no recognised standard as to the proper size of either a flower, fruit, or vegetable, I do not see how any unanimity of opinion can be hoped for. In fruits, at any rate, there are few who would not consider size with flavour preferable to flavour without

size; that seems to be a very ordinary desire, but with flowers the case is rather different, it is entirely a matter of taste and opinion. Some persons take the keenest delight in tiny alpine flowers, and find no pleasure at all in large trusses of zonal Pelargoniums or tuberous Begonias. Yet these latter, in the eyes of others, may be held equally beautiful.

Quality in flowers is a property much more difficult to define than it is in fruits. It is not difficult to tell whether a Grape, Peach, Melon, or any other fruit is of good quality or not, but when you come to flowers, what constitutes quality? Absence of coarseness and perfect form, some one will say, but still those are only two of several things which ought to be considered. There is, for instance, the all-important matter of colour, and to be able to judge whether any particular flower deserves full points for colour, the judge ought to know the true colour value of the variety or species that he judges. If a white, then the bloom of purest white would be best; if scarlet then the one richest scarlet, and so on. But with regard to size the question is most difficult. Who shall say when a flower is over-grown? Provided it has the good characters which distinguish a smaller flower, for what reason shall it be classed as inferior? It seems to me, therefore, that so long as a fruit, flower, or vegetable retains the properties that are generally recognised as making it perfect, or as nearly so as may be, then the presence of size should certainly not be considered a drawback, that is, from a judge's point of view. As I said before individual opinions will never be reconciled.

VILLA ROTHSCCHILD, CANNES.

ONLY one brief month throughout the whole year, the month of March, does Baron Alphonse de Rothschild spend at his beautiful winter residence at Cannes. That period is, however, perhaps the one when Riviera gardens are at their best; so far as that of the Villa Rothschild is concerned such is certainly the case. Throughout the month of March this particular garden has a really remarkable appearance, for the brilliancy and variety of the plants there cultivated I have never seen equalled. Thousands of Cinerarias, Primulas, Tulips, Hyacinths, Roses, &c., are grown for planting out in the flower-beds, and as the extent of the whole garden is but about four acres, it will be easily understood that the effect, when all the occupants of the beds are at their best, is most striking. The beautiful Anemone stellata, bearing scarlet, star-shaped flowers, fills a long border directly in front of the villa, while around the balcony and steps of the verandah the rosy lilac Bougainvillea and blue Kennedya grow luxuriantly. Of the large number of Tulips planted out, most of them are red; the prevailing colours among the Hyacinths are red, white, and blue. There are several beautiful beds of Pansies, with various bulbous plants growing up between them. Freesias and Ranunculi are also freely used in the adornment of the flower-beds, as well as Roses, Cytisus, and Lilacs. Large Camellia trees bloom freely in the open here; there is a large clump of them comprising several different coloured varieties. In a sheltered position near to the chateau there is even a Gardenia bush to be seen; this, however, has to be protected at night in case of frost.

The lovely pale blue Plumbago (*P. capensis*) when climbing freely over a wooden lattice, as it does here, is seen at its best, and no more charming climber could be wished for. When in flower in early spring the fine Acacias of the Villa Rothschild garden are masses of yellow; the trees are quite large and present a fine sight. Bamboos are here quite at home; one favourite retreat known as the Bamboo Walk is completely overhung by their tall and gracefully arching stems. The various Palms, too, are magnificent; almost every year one or more large specimens are transplanted, or brought from some neighbouring estate, so that the aspect of the garden is hardly ever the same for two years in succession. Immediately in front of the villa are too splendid plants of *Cocos plumosa* that reach almost to the top of the former. The edge of the lawn is studded with shapely

specimens of various Palms, such as *Cocos australis*, *C. Bonetti*, and *Brahea Roezlii*; these have light coloured foliage, and are peculiarly fitted for planting upon the lawn.

The Agaves, Aloes, and Mesembryanthemums are grouped together in a small rock garden, where their peculiar beauty is seen to the best advantage. In the conservatory that adjoins the villa one might almost imagine one's self in Fairy Land. Long streamers of *Cobea scandens* hang down from the roof almost to the ground, *Asparagus* and *Smilax* clothe the walls and pillars, while splendidly coloured *Caladiums*, bright *Anthuriums*, and *Amaryllis* meet the eye at every turn.

Other noteworthy subjects out of doors are *Magnolia grandiflora* that bears its large, white, sweetly-scented flowers in the autumn time, the peculiarly scented *Lantanas*, the deep violet-flowered *Lasiandra*, *Ceanothus*, and *Tecoma*, all of which help to create the varied and striking colour effects that are so noticeable.

VILLA VICTORIA, GRASSE.

THE remarkable garden of Miss Alice Rothschild, surrounding the Villa Victoria, at Grasse, her Riviera residence during the winter and spring months, enjoys an unique position. Situated upon the mountain side, above the small town of Grasse, it looks out across a long valley, where acres and acres of sweet smelling flowers are cultivated for the distilleries, to the Mediterranean in the distance. Miss Rothschild's domain is really divided into two distinct portions, the one consisting of the grounds and flower garden around the villa, while the other, of more recent formation, is what may be termed a wild garden. The natural beauty of the bold, rocky surface of the mountain side has not been destroyed, many of the plants and trees originally found growing there have not been done away with, but simply exposed to view, or transferred to other positions, where they may be better tended and more freely enjoyed.

One can imagine what a delightful garden such an one must be, extending as it does for a long distance up the mountain side. Carriage drives and pathways have been formed in and out of the large masses of rock, and venerable Olive trees, Pines, and Evergreen Oaks; in some instances water has been laid on, and what before were but barren rocks are transformed into charming waterfalls and cascades. Anemones, Ferns of various kinds, wild Orchids, and many other suitable plants are to be seen growing by the sides of the paths, and in the nooks and corners that such a garden affords. The tree vegetation chiefly consists of Evergreen and other Oaks, Olive and Orange trees and Pines, while here and there a more stately aspect is given by the presence of a few noble Palms. In this portion of the domain are also the glass houses, pits, and frames, where are grown the flowering plants required for the decoration of the lower garden, to which we will now descend for a few moments. Here Palms are to be seen in far greater luxuriance than above, and play an important part in the tree life of this portion.

To those whose ideas of Palms are linked with the small specimens grown in our greenhouses at home, it may perhaps seem somewhat out of place to refer to them as trees, but as seen growing in the grounds of the Villa Victoria they well deserve the name. The Aloes here are remarkably fine with their brilliantly coloured flowers of various hues, as are also the handsome Agaves, especially striking when bearing their large characteristic flower spikes. That charming climber *Browallia Jamesoni*, familiar to many as a pot plant in our home gardens under glass, is here very fine in the open, clustering around the white terrace walls or clambering over the rustic summer-house, its bright orange-tinted blossoms are extremely effective. The flower-beds are kept fresh and gay with beautiful Pansies, variously coloured Primulas, Cinerarias, &c. Such masses of colour as are produced by these, rendered doubly effective upon the clear green of the annually-sown lawns, together with the sweet scent of Orange Blossom, Roses, Violets, &c., and the tropical appearance of the

surrounding Palms, combine to make the lower garden equally as pleasing and enjoyable as the one higher up the mountain. A. P. H.

POPULAR BOTANY.

A LETTER FROM AMERICA.

BESIDES being an exceedingly busy, practical nation, the American people also devote some time to science and art. Now, strict science to the uninitiated is a dry subject, but popular science, handled in a popular manner, is intensely interesting to everyone. Many of us work so hard in the day time that our aching limbs and throbbing heads are not prepared to delve into the mysteries of research ourselves, but we are never too tired to listen to and grasp ideas spread before our eyes and ears by those who know their subject and can display it in a manner that a child can understand, and so plainly and interestingly that it becomes indelible on our minds and we yearn for more. Here in Pittsburgh we have a botanical society and we run it on these lines.

It is the Botanical Society of Western Pennsylvania. Its members are mostly professional men and women, school teachers, and people having a fondness or bent for botany and other branches of natural history and kindred subjects. Our regular meetings are monthly, and during the open months, that is, April to November, we also have frequent outings, when we go out into the fields, woods, and mountains miles away to study and familiarise ourselves with our wild flowers and plants. Our meeting room is in the botanical department of the Carnegie Institute, where everything is "free to the people." We have a nice library, and we had a fair herbarium, but we gave it to the Carnegie Institute on condition that they properly preserve it and that we have access to it and to their herbarium—getting to be a very extensive one—at all times. As we have little expense our dues are correspondingly light, only a dollar each a year, and this is enough. Our meetings are most delightful gatherings, and we do not restrict them at all to the members, everybody is invited. This is an excellent move, and is especially evident in the large number of high school pupils who attend.

At each meeting some particular subject is considered. At our October meeting it was Wild Asters and Golden Rods, and we had a great show of them—plants and flowers. At the November meeting it was Nuts. I enclose the notice. This was soon after Halloween when Nuts were in everybody's mind and mouth. Oh, what a splendid meeting we did have! We had an exhibit of Nuts, too, as complete a collection as money, diligence, and love could get together in our city, not one or two Nuts of a kind, but at least a quart of every commercial variety.

Miss Anna M. Deens, Professor of Biology, Normal Department, Pittsburgh High Schools, discussed "What is a Nut." Mr. W. H. Stevenson, senior member of the great grocery firm of George K. Stevenson and Co., told us all about Nuts from a commercial standpoint, what they are, and whence they came. Dr. Adolph Koenig, one of our most eminent physicians, spoke of Nuts as food, what were good and what not, and why they were wholesome and nourishing to some people and indigestible to others, and he showed us Nuts of special medicinal or poisonous nature; for instance, Betel Nuts and Bitter Almonds. Professor O. P. Midgler, an experienced botanist, described the native Nuts of Pennsylvania, and showed us specimens of every species indigenous in this part of the country, and a host of others from elsewhere. Professor H. W. Fisher, principal of our Seventeenth Ward Schools, having about 1,700 boys under his jurisdiction and forty years' experience as a schoolmaster, handled Nuts and the small boy in a manner that for fifteen minutes made us writhe in laughter. And Mr. Henry H. Negley, a private gentleman, had something to say about some other Nuts, thereby meaning things generally known as Nuts, but which cannot be classed as such botanically. For instance, he had a dish of Pittsburgh Nuts, they were the Nuts of iron bolts; about a bushel of Home Nuts, popularly called Dough Nuts; a breakfast food

called Grape Nuts; and so on. It was Mr. Negley who personally saw to getting together our whole collection of Nuts of all kinds, and paid for them out of his own pocket.

You cannot imagine how interesting and happy these meetings are and how well attended by men and women. One of the most interesting Nuts shown was a 22lb. specimen of Coco-de-mer from the Seychelle Islands. In addition to Nuts, Mr. Negley provided a fine display of home Apples, and the Phipp's Conservatories decorated the tables with flowers. And before the meeting broke up the whole contents of the tables were divided among the people who were present.

At this last meeting our esteemed secretary, John A. Shafer, bade us farewell. From its beginning eight years ago he has been the curator of the herbarium of the Carnegie Institute, but to our great regret he now leaves here to accept of employment under Dr. Britton in the herbarium of the New York Botanical Garden, Bronx Park. At our meeting his friends presented him with a most beautiful Masonic charm as a slight reminder of our great regard for so good a man and so earnest and untiring a worker.

Pittsburgh, U.S.A.

W. FALCONER.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

ORCHID COMMITTEE.

PRESENT: Harry J. Veitch, Esq. (chairman), Messrs. James O'Brien, de B. Crawshaw, R. Brooman White, H. M. Pollett, H. Ballantine, James Douglas, Francis H. Wellesley, Jeremiah Colman, W. A. Blinney, H. T. Pitt, J. Charlesworth, A. McBean, Edward Hill, T. W. Bond, M. Gleeson, J. W. Odell, W. Boxall, J. Wilson Potter, W. H. Young, H. J. Chapman, W. H. White, H. A. Tracey, and H. Little.

J. Coleman, Esq., Gatton Park, Reigate (gardener, Mr. Bound), displayed an extensive group of Orchids, including Dendrobiums, Calanthes (finely flowered), Cypripediums, Lycastes, and others. Calanthe Veitchii, C. Bryan, and C. vestita alba were splendidly shown. Silver-gilt Flora medal.

G. F. Moore, Esq., Chardwar, Bourton-on-the-Water (gardener, Mr. Page), showed an excellent group of Cypripediums that comprised many good varieties. The flowers were splendid, and the plants evidently enjoy the best of culture. Silver-gilt Flora medal.

Baron Schröder, the Dell, Egham (gardener, Mr. H. Ballantine), exhibited a very choice group, largely composed of Cypripediums; C. Mrs. Charles Canham had about thirty blooms, and there were well-flowered plants of C. insignis Sandere, C. l. sanderianum, C. pitcherianum William's var., and others. C. Acteus var. langleyense, C. Antigone, C. leanum, and C. cinnaberryanum, and Lycaste Ballie were other noticeable plants. Silver-gilt Flora medal.

Messrs. Hugh Low and Co., Enfield, showed a small group of Orchids, comprising some of the best Cypripediums and others. C. Charlesworthii x lawrenceanum was a fine deep crimson. Silver Flora medal.

Messrs. Sander and Sons, St. Albans, exhibited several Cattleyas, Laelio-Cattleyas, Cypripediums, &c.

Norman C. Cookson, Esq., Oakwood, Wylam-on-Tyne, exhibited Cypripediums and Odontoglossums in many fine varieties. C. Niobe Oakwood var. and C. cinnaberryanum were among them. Silver-gilt Flora medal.

W. E. Budgett, Esq., Henbury, Bristol (an amateur who does not employ a gardener, and without professional assistance), showed an admirable lot of Cypripediums that did great credit to Mr. Budgett's cultural skill. Silver Flora medal.

A silver Flora medal was awarded to O. O. Wrigley, Esq., for cut blooms of Cypripediums in several of the finest varieties; this was really a splendid lot.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited a group of hybrid Cattleyas, Laelio-Cattleyas, and Cypripediums. Silver Flora medal.

Mr. Cypher, Cheltenham, showed a small group of Cypripediums, C. Venus punctata being particularly beautiful. Silver Bankian medal.

Captain Holford, C.I.E., Westonbirt, Tetbury (Orchid grower, Mr. Alexander), exhibited a few choice Orchids, L. C. Ophir superba being a lovely flower.

M. Ch. Vuylsteke, Loochriste, Belgium, exhibited several very fine Orchids, e.g., Miltonia vexillaria robusta var. autumnalis, Odontoglossum harry-crispum ridens.

Mr. H. Whateley, The Nurseries, Kenilworth, exhibited a small group of Cypripediums and other Orchids.

Mr. W. Appleton, Tynycote, Weston-super-Mare, showed some Cypripediums.

Messrs. B. S. Williams and Son, Upper Holloway, N., showed a group of Cypripediums, Lycastes, &c. The Lycastes were particularly good.

SCIENTIFIC COMMITTEE—NOVEMBER 24.

Present: Dr. M. T. Masters, F.R.S. (in the chair), Messrs. Odell, Baker, Saunders, Chittenden, Worsdel, Holmes, Massee, Douglas, and Nicholson, Dr. C. M. Cooke, Professor Boulger, and Rev. G. Henslow, hon. secretary.

Scientific investigations at Wisley.—Professor Boulger remarked that it would be a comparatively inexpensive procedure to erect a Pine wood building on a brick foundation for laboratory, store-room, &c., probably not exceeding

£100 in cost. It was proposed to add this suggestion to the memorial to the council.

Canker in Apple trees.—Badly-diseased twigs were received from the neighbourhood of Salisbury. They proved to be attacked by Nectria ditissima. The only remedy suggested by Mr. Massee was to prune off all small wood and burn it, as well as to cut out diseased parts of boughs and tar the places.

Fear shoots diseased.—Specimen of diseased shoots was received from the Priory, Eynsford, Kent, from Mr. E. D. Fen. Mr. Massee suggested the following procedure: "The twigs are attacked by a fungus called Fusicliadium pirinum. All diseased twigs should be pruned, and, along with fallen leaves and fruit lying under the tree, collected and burned. It would be an advantage to spray the tree with Bordeaux Mixture next spring, just after the leaf-buds have expanded."

Experiments for commercial purposes.—Mr. F. Baker reported some results of his experiments and observations on leguminous plants. For the last five years a few varieties of garden Peas, field Peas, Runner Beans, Vetches, Sainfoin, and other plants of the same U.O. have been grown on good and poor soil respectively, parts of each plot being specially well tilled, parts manured, and parts treated with phosphatic and potassic fertilisers. Strips were arranged so that some spots should be well tilled, and also have a dressing of all the fertilisers and other spots to vary from nearly the same treatment to the poorest field culture. Results have shown that garden Peas and Beans cannot be profitably grown in very poor soil manured solely by mineral fertilisers; but these respond well to tillage, manure, and then the minerals. On the other hand, Vetches, field Peas, Sainfoin, and others of the older plants grown on the farm can be most profitably grown on poor soil manured solely with minerals. Manure will largely increase the yield of stem and leaf in all, but does not materially increase the yield of seed. If, therefore, seed be required, grow on poor chalky soil without manure; but if fodder is required, manure may be profitably used as well as minerals. The experiments also show the great use of the Vetch in ameliorating the soil, greatly enriching it, and, at the same time, cleaning it very economically. It is suggested that garden plants having been for many generations forced to an unnatural extent, are not able to adapt themselves to different conditions of soil, &c., whereas field crops which have had to seek for food to a large extent are able to develop specially well-formed roots, which easily absorb water and such phosphatic, potassic, and other mineral plant foods as are available, and on these roots are developed large numbers of nodules by means of which an ample supply of atmospheric nitrogen is assimilated.

EAST ANGLIAN HORTICULTURAL CLUB.

THE annual meeting of this flourishing club was held at the Shirehall Hotel on the 9th inst. The secretary (Mr. W. L. Wallis) had prepared an elaborate report of the useful work the club had done during the past season, and this was adopted as read. The auditors gave their report, which showed that after paying all sums, including donation to the new Horticultural Hall of the Royal Horticultural Society, extra prize money, and benevolence to members, there remained the substantial balance of £112 9s. 9d.

The election of officers for the ensuing year followed. Mr. J. Powley was re-elected president, and Mr. T. B. Field, Ashwellthorpe Hall Gardens, acting vice-president. Mr. Charles Daniels (Messrs. Daniels Brothers, Limited) was re-elected treasurer, as were also Messrs. J. F. Betts and H. Perry as auditors. Amid much acclamation Mr. W. L. Wallis, 12, Royal Arcade, Norwich, was unanimously re-elected secretary. Some readjustment of the rules and exhibit schedule occupied some time and produced heated discussion, especially as to the judging of competitive essays, which was eventually decided to remain as before, i.e., to be judged before the meeting and the three prize papers read, and an addition made that "the writers read their own papers or select their deputy."

A good table of papers and essay competitions is being arranged for 1904, including a lantern lecture in April by Mr. George Gordon, editor of the *Gardener's Magazine*, and one in October by Mr. Reginald Green (Hobbies, Limited) on the "Dahlia." The affiliation fees to the Royal Horticultural Society and the Norfolk and Norwich Horticultural Society, and subscriptions to the Gardeners' Benevolent Fund and also to the Orphan Fund were all passed for continuation.

There was only a moderate show of exhibits on the tables in competition, owing, no doubt, to the bad weather of the previous day and the day of the meeting. Mr. W. J. Laws, gardener to F. Martin, Esq., Wroxham, brought up some seedling Japanese exhibition Chrysanthemums, one of which, named Mr. F. Martin, a bronze red, received an award of merit from the floral committee. Mr. F. Williams, gardener to Mrs. Louis Tillett, showed good Begonia Gloire de Lorraine, and Messrs. C. H. Hines, gardener, Trowse House, and F. Carrington were noteworthy exhibitors of vegetables.

SHEFFIELD FLORAL AND HORTICULTURAL SOCIETY.

At the monthly meeting of this society there was a good attendance of members to hear an essay on the "Cultivation of the Onion," by Mr. T. J. Nelson, of Ashgate Gardens, Chesterfield. Mr. Nelson is well known as a successful grower and exhibitor of plants, flowers, and vegetables, and he showed some good specimens of Onions to illustrate the practical side of his essay. There were also some grand Onions exhibited by Mr. H. Deverill of Banbury, to which certificates were awarded. Alisa Craig was exceptionally good, as also was Autocrat, Cocoonut, and Challenge, and the exhibit created considerable attraction. A sample of Northern Star Potato, exhibited by the secretary (Mr. Lewendon), was another item of interest. It was announced that the schedule for the 1904 show was arranged, and that classes and prizes had been provided in the open competition to attract good exhibits. The venue of the show, the beautiful grounds of F. A. Kelley, Esq., Holly Court, should prove a considerably attractive one.

UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE monthly committee meeting of this society was held at the Caledonian Hotel, Adelphi Terrace, Strand, on the 14th inst., Mr. Thomas Winter in the chair. Four new members were elected. Eight members were reported on the sick fund. The attention of members is particularly called to Rule 14, a member having just forfeited his sick pay through neglecting to pay his subscriptions within the limit of seven months.

CARDIFF GARDENERS' ASSOCIATION.

AT a meeting held at the Grand Hotel on Tuesday evening, the 15th inst., Mr. H. R. Farmer in the chair, Mr. W. Richards, hon. secretary G.B.K.A., lecturer to the G.C.C., and expert of the B.K.A., delivered a lecture entitled "Bees as Fertilisers, Florists, and Fruit Producers," illustrated by a series of slides. The lecture was thoroughly a botanical and educational one, for flowers and fruits were represented in their various forms before and after fertilisation, showing the results of the work of bees. The best thanks of the meeting were given to Mr. Richards for his splendid lecture.

BRISTOL AND DISTRICT GARDENERS' ASSOCIATION.

THIS society met at St. John's Rooms on Thursday, the 10th inst., Mr. E. Powle, F.R.H.S., presiding over a good attendance. The lecturer for the evening was Mr. Orchard of Henbury, his subject being "Greenhouse Climbers," one that is interesting to all gardeners, and as a consequence Mr. Orchard's remarks were listened to by a very attentive audience. He gave a good selection of climbers suitable for the greenhouse, detailing the cultural directions for each in a masterly way, composts, pruning, thinning, training, and general treatment receiving his careful attention. He emphasised the necessity of cleanliness, keeping down insect pests, which if left would cause a great amount of trouble. He advised all gardeners to study their employer's tastes in the selection of their greenhouse and other climbers. A good discussion followed Mr. Orchard's exhaustive lecture, and he was unanimously accorded the best thanks of the society for so profitable an evening. The prizes for the evening were for two bunches of white Grapes, and were awarded to Mr. J. B. Brain (gardener, Mr. Atwell) and Mr. W. Howel Davis (gardener, Mr. Curtis). Certificates of merit went to Mr. W. E. George (gardener, Mr. Scott) for three well-grown plants of Begonia Gloire de Lorraine, and to Mr. F. C. J. Fisher (gardener, Mr. Shelton) also for a large plant of the same variety, and one to Lady Cave (gardener, Mr. Poole) for a collection of cut foliage of greenhouse climbers.

The society's annual dinner took place at St. Stephen's Restaurant on Thursday evening last, when there was a large gathering of horticulturists.

NATIONAL CHRYSANTHEMUM SOCIETY.

ON Monday, the 14th inst., the executive committee of the above society met at Carr's Restaurant, Strand, Mr. Thomas Bevan occupying the chair.

The usual preliminaries being over the secretary, Mr. Richard Dean, reported that he had several offers of renewal of special prizes for 1904, one of which was from their esteemed President, Mr. C. E. Shea. It was also pleasant to report that a new idea of offering special prizes had assumed a definite shape at the last show, when certain members had agreed to offer a good number of small prizes for the best blooms of certain varieties, to be named by them. The example was infectious, and many other like offers were made by almost every member of the committee.

A statement as to prizes offered and awarded at the December show was made, by which it appeared that a slight saving to the society resulted.

An interim financial statement was then submitted. Including the balance in hand at the beginning of the year, the receipts up to the date of meeting amounted to £739 6s. 5d. After all payments therefrom a satisfactory balance seems likely to be left with which to begin the new year, and great interest was shown in the details as submitted.

The chairman briefly reported on the interview that the officers of the society had had with the Crystal Palace authorities, who had very favourably received them, and it was stated that the society would hold three shows as heretofore, and that there would be no clashing with other exhibitions of any sort. The dates of the October and December shows are fixed as follows for next season: October 4 and 5, and December 8 and 9.

Mr. A. Taylor's annual audit of varieties shown at the great November show was then given, and comparisons made between the years 1901 and 1902. These particulars will duly appear in the new schedule. An enquiry was made as to the result of the annual dinner, and it was stated that 127 members and friends sat down on that occasion.

Mr. Berridge, quoting from the schedule of a local society, enquired the committee's opinion on the following point: In a class for six bunches of Pompons, three blooms in a bunch, several exhibitors staged Anemone Pompons and were disqualified by the judges; no class in the schedule was provided for Anemone Pompons. The committee held, under the circumstances, that the general term Pompon justified the inclusion of Anemone Pompons.

New members were elected, and the Darlington Horticultural Society was admitted in affiliation.

NATIONAL AMATEUR GARDENERS' ASSOCIATION. ANNUAL DINNER.

THE thirteenth annual dinner of this excellent association of *bona fide* amateur gardeners took place on Tuesday, the 8th inst., in the Venetian Chamber, Holborn Restaurant, London, W.C., the president, Mr. T. W. Sanders, F.L.S., occupying the chair. The chairman was supported by Mr. D. B. Crane (deputy-chairman), and among others there were Messrs. George Gordon, V.M.H., John Collingridge,

W. Cuthbertson, William Sydenham, J. H. Whitty, H. T. Wooderson (hon. treasurer), and F. Finch (hon. secretary). Altogether there were about 105 members and their friends present, and a very pleasant evening was spent. The usual loyal toasts were given by the chairman briefly, and received by those present with enthusiasm. Mr. John Collingridge, in giving the toast the "National Amateur Gardeners' Association, its Branch, and Affiliated Societies" briefly referred to the work of the association since its inception, and eulogised its aims and objects. He also referred to the time when he used to be a more regular attendant at its monthly meetings. Being the toast of the evening, the company gave it their heartiest reception. Mr. F. Finch, the hon. secretary, responded, assuring those present of the progress that was being made. The presentation of the championship trophies to the successful competitors was then proceeded with as follows: The National Amateur Gardeners' Association "Toogood" trophy (value thirty guineas), the "Cannell" trophy, and other prizes to Mr. George Hobday, Romford; the "Ichthemis" trophy for hardy flowers, the "Sydenham" trophy for Sweet Peas, silver tankard for Violas, and silver tankard for early-flowering Chrysanthemums (both from Mr. William Sydenham) to Mr. D. B. Crane, Highgate; the "Bycroft" trophy for Chrysanthemums to Mr. Edgar Jones, Bedford; the "Kinneil" trophy for Orchids to Mr. R. Forbes, Tottenham, who also won the "Sach" cup; to Mrs. G. W. Cook, for a table decoration, a valuable gold and matrix turquoise necklet; and to Miss Dorothy Oliver, for six table decorations, a handsome electro-plated cake basket. Each of the recipients as they were presented with their trophies came in for rounds of applause. Mr. G. W. Cook, with commendable tact and grace, proposed "The President." He sketched the great services rendered to the association by Mr. Sanders throughout the long years he had been so closely associated with its work, specially referring to the earlier efforts of the association. He said Mr. Sanders had been called upon for all kinds of work, lecturing, judging, and other kindred services, and on that account he should be regarded as the "handy man."

Mr. Sanders responded, assuring those present of his keen interest in the welfare of the association.

"The Trade and Donors of Trophies and Other Prizes," was proposed by Mr. A. J. Foster, who took this occasion to thank those who had so liberally supported the association with their gifts of handsome trophies, &c., and appealed for further support. To this Mr. William Sydenham responded, saying how pleased he was to be free from the worries and anxieties of the jewellery business that he might devote his time exclusively to the garden. He also promised two prizes for the coming year's exhibition. Mr. W. Cuthbertson (Dobbs and Co.) also replied. The "Vice-Presidents, Officers, and Committee" was in the hands of Mr. A. E. Stubbs, who congratulated the association on the excellence of its officers and committee, saying they were thorough and hard-working. Mr. H. T. Wooderson, hon. treasurer, thanked those present for the hearty reception given to the toast, saying with what care their finances were considered and dealt with. Mr. D. B. Crane also spoke, and said they felt honoured by the presence there of so many distinguished gentlemen. Each one was referred to in turn, and their merits eulogised. He also specially referred to the high esteem in which their president was held. "The Ladies" and "The Press" were toasted in interesting speeches, the former by Mr. G. M. Gross, and the latter by Mr. S. Hillman. Mr. W. A. Hobbs responded for the ladies, and the Press by Mr. George Gordon, V.M.H. and Mr. Castle, each of whom made capital speeches. The musical arrangements were under the direction of Mr. W. A. Hobbs.

HORTICULTURAL CLUB.

THE usual monthly dinner of this club was held at the Hotel Windsor on Tuesday, the 15th inst., under the genial chairmanship of Mr. Harry J. Velch, and was subsequently followed by a most interesting joint paper by Mr. G. Bunyard and Mr. James O'Brien on "Scented Inconspicuous Flowers." Mr. O'Brien naturally treating of the Orchid tribe, while Mr. Bunyard's remarks were of a more general character. A number of very curious facts were stated in connexion with the attraction undoubtedly exercised through their odours by many flowers which would otherwise presumably escape that attention of the insect world which is an essential factor in their reproduction, and the area of these phenomena was largely extended in the subsequent discussion in which the Revs. Professor Henslow and Engleheart, Messrs. Charles Pearson, A. Pearson, C. T. Drury, and others took part. With regard to the human faculty of appreciating odours either as attractive or repulsive or even as existent or non-existent, it was generally felt that man is little qualified to judge for the insect or even the animal world, since, as Mr. Engleheart pointed out, it was impossible to form a scale of odours in the same way as we can of musical sounds or optical colours, and it is quite possible, and, indeed, more than probable, that while our eyes and ears are limited in their scope to certain ranges of audible vibrations or a limited area of the spectrum, insect organs may be capable of appreciating at any rate sounds which are too subtle for our senses, and their olfactory nerves may also be so differently constituted as to be sensible of subtle scents beyond our ken. The case of rare moths in captivity attracting those of their kind from long distances were cited as an example by Mr. Drury, while Mr. Charles Pearson considered that this attraction might be due to extremely high pitched sounds omitted by the captives. Mr. Engleheart quoted an instance in support of Mr. Drury's contention, which indicated the attraction of certain moths whose habitat was seven miles distant. Applying this to flowers it is conceivable that inodorous ones to man may, nevertheless, yet attract the needful insects by scent. The curious fact of certain recognised odours being common not merely to flowers of quite different species, but even to animals and minerals, was brought forward, the pungent odour of the Onion being perceptible not only in other plants but also in the small snail *Helix*

alliaris. Allusion was also made to the singular cases of flowers with, to man, the most repulsive odours, attracting carrion flies in large numbers, with the result that they laid their eggs in profusion upon such flowers, though these eggs were destined to perish, since no real food such as was suggested by the odour existed for the future brood. Some of the *Stapellas* possess this peculiarity, and Mr. Drury suggested the possibility of such plants being allied to carnivorous ones, the added eggs acting as nutriment. The subtle nature of odours was also indicated, the musk glands of animals having the power for many years, not only of retaining their peculiar scent, but of imparting it perceptibly to the surrounding air and adjacent articles without any appreciable decrease in substance or weight. Referring to the innumerable odours of the foliage apart from the flowers, it was mentioned that such emanations had been regarded as the mere throwing off of useless materials. This view, however, could hardly be justified, since there was undoubted evidence that in some cases these odours exercised a deterrent effect upon verminous foes. Both papers teemed with examples of curious relations between scent and inconspicuousness, while on the other hand it was pointed out that many very conspicuous ones had as it were two strings to their bow, being fully as odiferous as their humbler relatives. A hearty vote of thanks to both contributors closed the proceedings.

Mr. A. Melville, son of Mr. David Melville, head gardener at Dunrobin Castle, N.B., who has charge of the gardens at Moulton Paddocks, Newmarket, seat of Sir Ernest Cassel, K.C.M.G., has been given supervision of the estate there also.

Dingley, Market Harborough.—A recent visit to this place provided an object-lesson as to what can be done with comparatively limited glass in the way of growing winter-flowering plants. Two large span-roofed houses were literally a blaze of colour. Begonias Gloire de Lorraine, Turnford Hall, and Mrs. L. de Rothschild were a remarkable lot of plants, which the writer has never seen excelled. Conspicuous also was *Salvia splendens*, 4 feet in diameter, covered with long spikes of brilliant flowers. Two side stages were filled with well-grown zonal Pelargoniums, each carrying many fine trusses of bloom. In another house were Euphorbias, that old favourite *Jacquiniaeflora* being particularly fine. *Coleus thyrsoides*, with ten to twelve strong spikes, promise a fine display later. The Carnation house contained a fine lot of plants, both Malmaison and tree varieties, in the pink of condition, and quite free from rust. In a pit we noticed a superb batch of Persian Cyclamens, giant strain, just coming into flower, which will make a brilliant show through the winter; also *Primula obconica* and *P. stellata* in good form. The conservatory was filled with a grand lot of Chrysanthemums, grouped in separate colours, a method of arrangement which might with advantage be more generally followed. In the stove were well-grown and coloured Crotons, *Acalyphas*, &c., strong spikes of *Calanthe Veitchii* being also observed. Dingley being the hunting residence of Viscount Downe, winter-flowering subjects are much in demand, and are under the charge of Mr. Clipstone.—J. D.

Chrysanthemums in a market nursery.—In the early days of the season it was my pleasure to look through the collection of Messrs. G. Prickett and Sons, Enfield Highway, where the Chrysanthemum is grown in a manner that would surprise many of our so-called specialists. Between 30,000 and 40,000 plants are flowered in the numerous spacious glass houses. The plants are in pots. Rigid disbudding is not followed here, but, instead, the plants are encouraged to develop a dozen to eighteen, I should think, flowers of medium size on each plant. When at their best the display is a sight to remember. The season for cutting begins in October, Soleil d'Octobre, a canary yellow of much value at that period, and Bronze Soleil d'Octobre, a pretty bronzy fawn sport from the first named, being a pair from which an immense crop was being gathered. Of the former Messrs. Prickett grow some 4,000 plants, and of the latter quite 5,000. Bronze Soleil d'Octobre originated here, and on the occasion of our visit there were also two or three others waiting to be fixed. La Triomphante is another good market Chrysanthemum, and to show the sportive character of this old sort the flowers were seen in varying tints of colour. The firm also has a sport that they have fixed of this variety, but any flower of a lilac or rose, or one with a shade of magenta in its colour, fails to

please and commercially has little value. Remarkable was the colour of Viviani Morel and its sport. There were numerous examples of this fine trio; Viviani Morel was a lovely silvery pink, Lady Hanham a brilliant cerise, and Charles Davis a glorious chestnut-bronze. The plants were flowering from a terminal bud selection, which is the best for all decorative Chrysanthemums. Souvenir de Petite Amie is regarded here with much favour as a good all-round market white. The rich crimson M. William Holmes is in profusion, also Mme. Edouard Roger, which is white, tinted green. The plant does not care for too much water, but requires liberal feeding. The flowers, when in a cut state, associate effectively with other white flowers, such as Lily of the Valley. Eynsford White is an exhibition white of years ago, but grown in market fashion is free and distinct. The plants are not stopped. Caprice du Printemps is very free; the colour is a rosy amaranth. There were capital groups of the old and popular Source d'Or, and the recent crimson sport of Crimson Source d'Or. New Phœbus is a good yellow. Of later sorts Western King, a glistening white incurved Japanese, is very beautiful. Under the same heading is W. H. Lincoln. Mme. Felix Perrin syn. Framfield Pink is soft pink, and quite unique in the late-flowering section. Taxedo is good, and bronze. Mrs. Barklay, when grown freely and partially disbudded, is a grand plant in December; its flowers are mauve-pink. Another good pink is A. J. Balfour. Excellent late-flowering white sorts of Japanese origin are Letrier, Princess Victoria, Mrs. J. Thompson, and Mlle. Theresa Panckoucke. Two good October-flowering whites were at their best at the latter end of that month, and their names are Nivette and Ivory. A good bronzy red for late October flowering is Market Red. H. W. Rieman is a good December-flowering yellow, and Julia Scaramanza a rosy bronze.—D. B. C.

Sweet Pea Countess Spencer.—I understand that this splendid novelty will be distributed during the coming spring by Mr. R. Sydenham, of Birmingham. Unquestionably this is one of the finest additions that has been introduced to this now popular flower for some time. It is a distinct break, and should prove the forerunner of many good things. I was much struck with it two seasons ago in the gardens at Althorp Park, where it was raised by Mr. S. Cole, the able gardener. The colour is a most delightful pink, and flowers are borne on long, stout stalks, and under artificial light it is most charming, thus rendering it invaluable for the decoration of the dinner table. All growers of Sweet Peas will do well to add this to their collection for next year. It is very robust, consequently to achieve the best results it should be sown very thinly. It grows to a great height, and continues to flower freely till late in the season.—E. BECKETT.

Lifting Broccoli.—In so many gardens scant provision is made for the lifting and protection of Broccoli in winter, and the uncertainty of a daily or even an occasional supply is very great. So much depends upon actual frost, its severity, and length of duration. Last winter demonstrated this truth most forcibly, for at intervals of three weeks or a month sharp spells, lasting, it is true, only a few days, occurred each time, but they were sufficient to cut off the supply. These intervals brought the succeeding sorts and batches of plants into conflict with the frost just at a critical period, namely, the development of the flower or "curd." Prior to this the Broccoli may have withstood quite severe weather uninjured, but directly the curd becomes a prominent part of the plant then protection should be thought of. It is largely by reason of this fact that beds of late Broccoli often turn in so well. In severe weather there is a tendency for the leaves to reflex, leaving the heart more or less exposed, and the practice of tying them up or breaking down the outside leaves over them is not always satisfactory. With a spare house or brick pit, where succeeding batches may be temporarily laid in, they may be further protected with any available covering should the weather become acute and there are no hot water pipes to render them frost-proof. Planted in soil in

aslanting position they soon commence to make active roots, which, in turn, support the required heart-growth. Should frost overtake an available crop, they may be lifted and placed in a cool frost-proof building to await their use. Supplies have been preserved in this way, while if left undisturbed they would have been worthless. It is important to be prepared in times of emergency with accommodation such as that I have mentioned. Last winter Broccoli was scarce for three months through frost.—W. S.

The National Chrysanthemum Society—November exhibition in 1904—Novel series of prizes.—At the last meeting of the executive committee of the National Chrysanthemum Society it was announced that, at the suggestion of Mr. Cuthbert of Southgate, prizes should be offered for the best blooms of a series of varieties, the names of which should in each case be specified. Five shillings was mentioned as the value of the prize offered in each instance. The idea was well received, and already quite a large number of donors of prizes have been registered, with the name or names of the varieties they prefer to see exhibited at their best. One trade grower offered no less than twenty prizes of five shillings each, others offered ten and six each, and of those present at this meeting the majority promised two prizes each. Generally speaking, the donors offered half their prizes for Japanese and the other half for incurved sorts; in one case a large-flowered Anemone was selected. As a result of this almost spontaneous support of Mr. Cuthbert's idea, it seems fairly safe to assume that those who exhibit next season will be induced to show their best, and in consequence the standard of quality throughout the exhibition should be very high. The blooms are not to be set up in special classes by themselves, but are to be selected from those staged in the numerous competitive classes. Growers, therefore, will not be called upon to increase the number of blooms they usually bring to the exhibition, as the chief aim of this experiment appears to be that of representing the different varieties at their best in the classes already provided.—D. B. C.

Too many varieties of Apples.—To those about to extend largely the planting of Apples in orchard or garden, your extract from the Journal of the Royal Horticultural Society should be most helpful in avoiding those sorts likely to disappoint. With most of the varieties enumerated my experience almost exactly coincides with yours, but more particularly in reference to Cox's Orange and Cornish Gilliflower. Why the latter is so lavishly planted, even admitting its high flavour, I have never clearly understood, for Cox's is much superior to it. With regard to flavour, I cannot distinguish any difference, for under repeated tests there would appear no suspicion of advance in favour of one or the other. The high quality of its fruit is the only recommendation that would seem to justify the planting of Cornish Gilliflower, and I have often wondered why this should be acted upon, when Cox's is equal in this respect, and superior in all others. By pruning in the ordinary way much fruiting growth is apt to be cut away, because fruit-buds form on the extremities of lateral growth. By pruning with a view to retain these buds the tree loses all its character as a garden bush or pyramid, because so much lateral growth is retained. This assumes a drooping character by the weight of fruit acting on the tips. The roots must be kept under strict control or there will be a thicket of growth, and the pruner finds a maze in reducing these superfluous growths and selecting those to retain which show a promise of future fruit bearing. While a well-grown Cox's is handsome both in colour and outline, the shape of the Gilliflower would not appeal to any save those who are familiar with its quality. As a fruit it cannot be described as handsome, and particularly is this so in samples derived from ordinary cultivation. Before the advent of Cox's, probably the flavour merit justified the cultivation of Cornish Gilliflower, but the duplication of these two names does not appear necessary.—W. STRUGNELL, *Road Ashton.*

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Name of plant.—Miss F.—*Salvia caelestinum*.
Rock garden (SWDE).—Get the "English Flower Garden," 15s., published by John Murray, Albemarle Street, London.

Nectarine tree to plant under glass (G. H. S. H.). To have fruit ripe the end of August and the first three weeks of September. This is rather late in the season for Nectarines under glass; most of the good varieties would be ripe before the third week in September. Humboldt or Spenser would, we think, suit our correspondent the best. They are both among the largest in size, and the varieties are of strong constitution and good croppers. The former is a seedling raised from Pine-apple. It is much larger than this variety, and equal to it in flavour. A highly-coloured and handsome fruit. Spenser is large and handsome, with exquisitely flavoured flesh. On the sunny side the colour is deep crimson, shading to light rose on the shady side. Either of these varieties, we think, would suit our correspondent.

The growth of Lichen on fruit trees (G. L. Lauenstein).—We know of no effectual cure to the growth of Lichen on fruit trees in those districts where the climate and atmosphere favour its development. We have no faith in the efficiency of any remedy recommended for its permanent destruction as long as the conditions favouring its growth remain. A recipe such as that mentioned by you may destroy its growth for a season, but no longer; at the same time it must be remembered that a remedy strong enough to destroy one species of vegetable growth must be strong enough to injure, if not destroy, another vegetable growth, namely, the tree itself. We have had considerable experience with this undesirable growth on fruit and other trees on land not far removed from the sea coast, where the growth is usually the most troublesome, and the best remedy we have found is to wash the trees with a solution of soft soap, a wine-glass full to a gallon of warm water, brushing it well into the trees, at the same time brushing the Lichen clean off, afterwards dressing the tree with lime water.

Verbena diseased (E. C. CLOUGH).—The Lemon-scented Verbena is naturally deciduous, therefore your plants are just behaving in the normal manner. We have some that have been stood out of doors throughout the summer, and they are now in the greenhouse absolutely leafless. All that is required during the winter is to give just enough water to keep the soil slightly moist, giving them, indeed, much the same treatment as a Fuchsia; then, on the return of spring, shorten back any straggling branches, give an increased supply of water with an occasional syringing, when the plants will push forth new shoots and grow away freely. Should repotting be required, it is best done when the young growth is about a quarter of an inch long. One caution to be particularly observed is that the new leaves are extremely liable to be attacked by aphids, which soon cripple the entire plant. This caution is very necessary, as, unless especially sought for, they often work much havoc before their presence is suspected. XL All Vaporiser will readily destroy them.

Panoratiams after flowering (W. H.).—As a rule the best time to repot Panoratiams is directly they have done flowering; but if that happens to be in the depth of winter it is far better to leave them till February before carrying out the operation. At the same time Panoratiams, if in good condition, will stand for years without repotting, and flower in a perfectly satisfactory manner, in which case an occasional dose of liquid manure during the growing season is beneficial. There is an extensive choice of stove climbers, the following including the most select: *Allamanda Schottii*, a vigorous climber, whose large golden blossoms are borne throughout the summer and early autumn months; *Aristolochia elegans*, shell-like flowers of a creamy ground netted with brownish purple; is well adapted for a small structure, where it will flower throughout the summer or even longer; *Clerodendron Balfourii* bears a great profusion of scarlet flowers, each of which protrudes from a large inflated white calyx; *Dipladenia boliviensis*, a charming climber, whose tubular-shaped flowers, in colour white with a yellow throat and 2 inches across, are borne in the latter part of the summer and in early autumn; *Dipladenia hirsutissima*, flowers larger and of a rosy scarlet colour, but the plant is more exacting in its cultural requirements than the preceding; *Ipomoea Horsfallii*, suitable for a large structure where but little shaded, under which conditions the ruby-red flowers are produced in midwinter; *Passiflora princeps* (racemosa), a pretty scarlet-flowered Passion Flower of medium vigour; *Thunbergia grandiflora*, large pale blue flowers borne in summer. This needs much the same conditions as the *Ipomoea* just mentioned.

GARDENING APPOINTMENT.

MR. ROGERS, late of Dropmore, has been appointed head gardener to R. W. Hudson, Esq., Danesfield, Marlow.

* * The Yearly Subscription to THE GARDEN is: *Inland*, 15s.; *Foreign*, 17s. 6d.

